Task Force to Study Mulching, Composting, and Wood Processing

Report to the County Council

March 9, 2015
Updated
April 13, 2015

Creation of Task Force.

By adopting Council Resolution 74-2014 on July 7, 2014, the County Council created "a task force to study mulching, composting and wood processing policies and regulations with respect to Howard County land use planning processes and Zoning Regulations."

The Resolution specified the composition of the Task Force and the various appointing entities named the following members:

- Representing Council District 1 - Martha Clark;
- Representing Council District 2 - Sean Harbaugh;
- Representing Council District 3 - Brent Loveless (Dale Fixsen, alternate);
- Representing Council District 4 - Richard Goldman;
- Representing Council District 5 – Brent Rutley;
- Representing the Dayton Rural Preservation Society, LLC - John Tegeris Ph.D. (Mike Navarre and James Nickel, alternates);
- Representing the Howard County Citizens' Association - Stu Kohn (Jacquie Sentell, alternate);
- Representing the Concerned Citizens of Western Howard County - Theodore Mariani;
- Representing the Howard County Farm Bureau - Zack Brendel;
- Representing the Howard Soil Conservation District - Robert Ensor (Justin Brendel, alternate);
- Representing the Howard County Agricultural Land Preservation Board - Lynn Moore (Howie Feaga, alternate);
- Representing the Howard County Health Department, Bureau of Environmental Health - Bert Nixon;
- Representing the Howard County Department of Public Works, Bureau of Environmental Services - Jeff Dannis;
- Representing the Howard County Environmental Sustainability Board - Cathy Hudson;
- Representing the Howard County Economic Development Authority - Kathy Zimmerman (Keith Ohlinger, alternate);
- Representing the University of Maryland Extension - Gary Felton Ph.D.;
- Robert Orndorff, RLO Contractors, Inc., a permit holder; and
- Representing the County Executive – Rick Lober.

In accordance with the terms of the Resolution, the Task Force elected as co-chairs Zack Brendel and Richard Goldman.

The Task Force was assisted in its work by Marsha McLaughlin and Cindy Hamilton from the Department Planning and Zoning (DPZ)[1] and by David Moore from the Office of Law. Jeff Meyers from the County Council office provided staff support. The Task Force commends the County employees who were members of the Task Force or who helped it for their diligence, expertise, and thoughtful contributions.

Charge to Task Force

The County Council charged the Task Force with studying land use policy as it relates to mulching, composting, and wood processing and to recommend ways to make them more responsive to both agricultural and residential needs. The County Council recognizes that sustaining the profitability of farmland while protecting the quality of life for rural residents are both worthy goals which occasionally may conflict with each other and that there is opportunity for improvement in the land use planning process. The County Council directed the Task Force to examine, including but not limited to, the following:

a. The role, scope, and impacts of mulching, composting, and wood processing activities to the overall sustainability of the County.

b. The best management practices for mulching, composting and wood processing uses.

c. Optimal sizes and locations for mulching, composting and wood processing uses.

d. Statewide (Maryland Departments of the Environment and Agriculture) regulations and potential changes in the area of mulching, composting, and wood processing activities.

Meetings

Beginning on July 17, the Task Force met 24 times to examine the various issues related to mulching, composting and wood processing in Howard County. In addition to the expertise represented by the members, at its meetings the Task Force was briefed by: Assistant Fire Chief

[1] **Acronyms used in this document**

AHJ	Authority Having Jurisdiction
COMAR	Code of Maryland Regulations
DPW	Howard County Department of Public Works
DRPS	Dayton Rural Preservation Society
DPZ	Howard County Department of Planning and Zoning
HCDFRS	Howard County Department of Fire and Rescue Services
HSCD	Howard Soil Conservation District
M1/M2	Manufacturing zoning districts
MDE	Maryland Department of the Environment
NRCS	Natural Resources Conservation Service
NWWR	Natural Wood Waste Recycling
NWWRF	Natural Wood Waste Recycling Facility
RC	Rural Conservation zoning district
RR	Rural Residential zoning district
SDP	Site Development Plan

Daniel Merson, Howard County Fire Marshal, David M Banwarth, P.E., Fire Protection Engineer, Mickey Day, Chief, West Friendship Fire Department; Jeff Harp, geologist; Chuck Shuster, University of Maryland Extension, Ned Tillman, Howard County Environmental Sustainability Board, Richard Walter, University of Maryland Extension; Dr. Patricia Millner of the Beltsville USDA laboratory; Kris Jagarapu, Chief Traffic Engineer, Howard County Department of Public Works; Captain N.W. Dofflemyer – Commander, Commercial Vehicle Enforcement Division, Maryland Department of State Police, Mark Franz, Assistant Director of Outreach and Technology Transfer, National Transportation Center, University of Maryland, and Ron Brookman, Asphalt Paving Consultant. The Task Force also made a site visit to the County's Composting Facility and the natural wood waste processing facility, both at Alpha Ridge.

The Task Force notes that representatives from the Maryland Department of the Environment (MDE) did not attend any meetings despite several invitations to do so. This hindered the Task Force as it sought to understand MDE policies and regulations.

Farms

The Task Force understands the importance of farming to the County and unequivocally supports the right of farmers to conduct agricultural activities in ways that are environmentally sound and economically viable. Farmers in Howard County have proven to be good neighbors and stewards of the land. The regulations that the County adopts to control composting and natural wood waste recycling facilities should be crafted to avoid placing undue burdens on farmers as they conduct agricultural activities. However, it must be noted that some members of the Task Force see composting as a farming activity only when the bulk of the end product is used on the farm and do not view wood waste recycling as a farming activity.

Kinds of facilities

Facilities that recycle solid organic waste products fall into categories defined in State law. This report covers Composting Facilities and Natural Wood Waste Recycling Facilities This report is not concerned with sewage treatment plants nor with natural decomposition that is neither accelerated nor facilitated by human intervention. The Task Force also recognizes that certain facilities are so small that County regulation is not required.

a. *Natural Wood Waste Recycling Facilities*

State law provides that a Natural Wood Waste Recycling Facility ("NWWRF") provides recycling services for natural wood waste consisting of tree and other natural vegetative

refuse like tree stumps, brush and limbs, root mats, logs, and similar natural vegetative material.[2] Maryland Department of the Environment (MDE) determined that natural wood waste poses the least risk to the environment of all of the types of organic materials recycling.

The laws regarding Natural Wood Waste were codified in Statute in 1992 and by regulation thereafter. The laws do not specify how large a facility must be to require a permit but do have requirements about how a facility should be run if a permit is required. Zoning requirements are not preempted thus allowing local governments to add requirements. These facilities are inspected by MDE Land management program generally quarterly.

MDE has imposed a variety of requirements on NWWRFs regardless of the requirement to have a permit. COMAR 26.04.09.03 specifies that a facility may not: (1) create a nuisance; (2) be conducive to insect or animal infestations; (3) cause air pollution; (4) cause water pollution; (5) harm the environment; (6) create a hazard to public safety, health, or comfort; (7) deal with materials other than wood waste; and (8) burn wood waste. Similarly, fire codes, certain noise restrictions, occupational and equipment safety standards, and other requirements apply to all facilities regardless of permit status.

b. *Composting facilities*

Compost as a product is regulated by the Maryland Department of Agriculture (MDA), but facilities that manufacture compost are not currently regulated. MDE has proposed regulations that would govern these facilities. The regulations were opened for public comment in January 2014 and in July 2014 a revised set of regulations were distributed to stakeholders until they would be re-issued for further public comment, which happened on December 12, 2014. The Task Force used the July 2014 draft regulations and the December 2014 update for their discussions as if these laws were in place. Without this assumption, no meaningful discussion of Composting Facilities would be possible. Comments on the December 2014 draft regulations were not significant and thus the Task Force expects final regulations will be issued in April 2015. Nevertheless, the recommendations and conclusions of the Task Force must be taken with discretion if the final State regulations vary significantly from the draft versions.

[2] A natural wood waste recycling facility is exempt from State regulation if it is operated by a nonprofit or governmental organization or is a single individual or business that provides recycling services for its own employees or for its own recyclable materials generated on its own premises.

The proposed Composting Facility regulations are much more comprehensive than the NWWRF regulations and address on-farm composting, surface water and groundwater contamination, pathogen destruction, as well as site closure. Composting facilities are subdivided into Tiers based on the feedstocks that they are processing. Tier 1 Composting Facilities will accept yard trim, grass, and leaves. Tier 2 Composting Facilities can accept yard trim, grass, and leaves, as well as food scrap and manures. Tier 3 facilities are regulated separately under the Sewage Sludge composting regulations. The proposed regulations facilitate composting on farms where less than 40,000 square feet (about 1 acre) are "in support of composting", but still require permits for Composting Facilities that are larger than that in size.

MDE has imposed a variety of requirements on those that produce compost regardless of the requirement to have a permit. COMAR 26.04.11.04 specifies that a composter may not: (1) create a nuisance; (2) be conducive to insect or animal infestations; (3) cause nuisance odors or air pollution; (4) cause water pollution; (5) harm the environment; and (6) create a hazard to public safety, health, or comfort. Similarly, fire codes, certain noise restrictions, occupational and equipment safety standards, and other requirements apply to all composting operations regardless of permit status.

Background

The 2004 Zoning Regulations included two Conditional Use categories that were relevant to the production of mulch or compost: "Sawmills and Mulch Manufacture"; and "Yard Waste Composting Facility". The former was potentially obtainable in the RC or RR zoning district and included a provision whereby the use could include the ancillary cutting of firewood. The criteria for approval of this Conditional Use category stipulated structure and use setbacks (500 feet from existing homes on a different property and 300 feet from property lines), required that parking and storage areas be screened, and allowed the Hearing Authority to establish hours of operation and endorse retail sales of materials produced on the site.

Within the 2004 Zoning Regulations, the Conditional Use for a "Yard Waste Composting Facility" was potentially approvable in the RC, RR, or M-1 zoning district. This use category included extensive and diverse criteria that addressed various considerations ranging from structure and use setbacks to the control of odors and the handling of leachate.

The County undertook its most recent Comprehensive Zoning effort in 2012 and 2013. Within the resulting Zoning Regulations, which became effective on October 6, 2013, the Conditional

Use category for "Sawmills and Mulch Manufacture" was modified to also include Bulk Firewood Processing and/or Soil Processing. In addition to expanding its use applicability, the criteria under which this Conditional Use category could be granted was revised to: clarify building and use setbacks; impose a 10 acre minimum lot size; stipulate vehicular access mandates; and provide additional restrictions for sites encumbered with an Agricultural Land Preservation Easement. This Conditional Use remained potentially approvable solely within the RC or RR zoning districts.

Also as part of the 2013 Comprehensive Zoning, the Condition Use category for a "Yard Waste Composting Facility" was retitled as "Composting Facility" and several of the criteria were reworded. At the same time, changes were made relative to the zones in which this Conditional Use could be obtained. Rather than being potentially permitted in the RC, RR and M-1 districts, the new Composting Facility Conditional Use was limited to the RC district only.

In January and February of 2014, County residents became aware of plans to establish a Composting Facility within the western part of the County. In response to concerns raised by these residents, the County Council sponsored a bill (ZRA 149, CB 20-2014) intended to amend the Zoning Regulations to replicate to the extent possible the regulations that were in effect before October 6, 2013. That ZRA, which became effective on August 4, 2014, deleted the "Composting Facility" Conditional Use category and reinstated the former Conditional Use for a "Yard Waste Composting Facility". The applicability and criteria associated with this reinstated Conditional Use replicated those from the 2004 Zoning Regulations, with the sole exception that an additional criterion was added requiring that the applicant must have obtained all State and Federal permits before the Conditional Use could be granted.[3]

Need for facilities

Today Howard County collects yard trim from most residents outside of the western portion of the County. This material is processed either as natural wood waste into mulch or is composted. Ten-thousand tons of curbside collected yard trim is exported outside of the County to NWWRF each year. This does not include privately collected materials or materials collected by Home Owner Associations. The State estimates that only 71% of yard trim is collected and recycled. Because recycling goals for the County and the State are expected to increase, the result will be a need for more natural wood waste recycling facilities. Given the large mass and relatively low value of these feedstock materials, the need for local processors will grow.

[3] CB 20-2014 also eliminated the previous requirement of a traffic study being conducted and substituted much less restrictive language that roads must have adequate structural support.

In Howard County, approximately 23.5% of residential trash is food scrap or compostable materials. Currently, food scrap collection is being rolled out slowly and is offered to about 20% of the County's residents. The County does not collect food scrap from commercial locations like supermarkets, restaurants, and food processors. According to the Department of Public Works, over 100,000 tons of food scraps are generated by these businesses in Howard County each year. Local recycling or re-use of those materials may soon be required by the State either as a push-down on the counties or as a mandate for businesses.

Farms generate feedstocks such as leaves, grass, tillage, manure, and tree trimmings ("feedstock"). Farms often use finished compost, wood chips, and mulch products ("product") as fertilizers, soil amendments, and animal bedding. As farmers move away from synthetic fertilizers, the demand for organic based soil amendments will grow. Even with the interest or expertise to do in-house processing, many farms do not generate sufficient feedstock to meet all of their product needs, thus these farms will seek to import feedstock, product, or both. Other farms, especially small farms with livestock, have waste products that other farmers want or need.

Nurseries and landscapers both generate feedstock and use product. Like farmers, few will generate sufficient feedstock to generate enough of the soil amendments that they need. Thus they will need to import feedstock, product, or both. Because the feedstocks are inexpensive but bulky, the processing and transportation costs of manufacturing and delivery become key components of their affordability. Thus local facilities to accept feedstock and generate product are critical to keep manufacturing and transportation costs low.

Developers and builders create feedstock by clearing land. They need product for soil improvement, stormwater management, and landscaping. Because developers and builders generally do not operate composting or natural wood waste recycling facilities, developers and builders need facilities both to accept feedstock and to provide product.

Howard County has not been impacted by a Hurricane since Andrew in the early 1980's. Thus the forest and tree stock in the County has only matured. When the next high wind event occurs, the Department of Public Works indicates that the entire region will be stressed by the need for natural wood waste recycling facilities. Having facilities, and policies in place for these facilities, will help the County ensure faster recovery.

Operators

At Alpha Ridge Landfill, the County operates a Tier 2 Composting Facility and a NWWRF. The Composting Facility processes yard trim and food waste from the County's pilot curbside collection routes. It also processes grass, leaves, and manure delivered by residents, farmers, and contractors. Its capacity is 3,000 tons per year. Alpha Ridge also processes brush and natural wood waste delivered to it. The facility processes about 14,000 tons per year and produces naturally colored mulch.

There are several small commercial operators in the County. Only three hold NWWF permits from MDE: RLO Contractors, Level Land, and Oak Ridge. Robert Orndorff, the principal of RLO, as a principal of JBRK, LLC, purchased approximately 150 acres of farm land[4] in Dayton with the intention of operating a natural wood waste recycling facility. Those plans cannot be pursued until the Council acts on the Zoning issues being studied by the Task Force.

Erich Bonner, who owns Oak Ridge Farm, a tree nursery on Woodbine Road, agreed to a consent order in November stating that the farm, which is under a preservation easement, was in violation of zoning regulations in February, when a County inspector visited the property and observed mulching operations underway.[5]

A number of composters operate in the County. The full extent of commercial activity in this area is not clear. The proposed MDE regulations on composting will expand the number of operators who must seek permits. This new permit activity will help the County better understand the extent of commercial activity.

Operators of NWWRF and composting facilities are subject to other regulations. These facilities may require a stormwater pollution prevention plan, a nutrient management plan, and various State and federal permits including air permits, water appropriation permits, and stormwater discharge permits. These facilities are subject to the County Fire code and may be subject to additional restrictions if covered by an Agricultural Preservation or conservation easement. Some facilities may be covered by the DPW solid waste plan and many will be subject to the environmental health regulations that cover domestic wells.

Issues

a. The production of compost or natural wood waste recycling may pose issues related to

[4] The parcel is in Agricultural Preservation.

[5] Bonner has since entered into an agreement with the County that he would not import, export, or grind material until the Task Force has made its recommendations and future changes in zoning have been applied. Before beginning operations, Oak Ridge had verbal state and county approval of the operation.

water pollution. The magnitude of the operation and site conditions are critical factors to the risk to local water supply. These issues are well-controlled by facilities that follow MDE regulations and industry-standard best practices. However, the potential for harm to down-slope, nearby wells cannot be entirely removed but can be greatly diminished with appropriate buffering and intelligent siting.

b. When feedstocks, materials in process, and finished products are mechanically disturbed by grinding, turning, or loading, dust, naturally-occurring mold spores, and other particulates are released into the air. Depending on the moisture content of the materials and the atmospheric conditions, some materials may remain airborne for considerable distances. Additionally, like any similar activity, heavy equipment and truck traffic may stir up dust. Certain terrain features affect the spread of airborne material. Thus appropriately-sized buffers, sediment control measures, thoughtful siting, misting and other dust control systems, and intelligent operations plans are required to reduce any hazards.

c. Grinding equipment, loaders, and trucks will generate noise. Although farming or land-clearing operations also generate noise using the same kinds of equipment, a facility dedicated to composting or natural wood waste processing may generate noise more often and more consistently. Thus appropriately sized buffers, forested screening, and hours of allowed operations may be required to reduce any nuisance effects.

d. Because the materials accepted and processed are often combustible, composting and natural wood waste facilities pose a fire risk. Windrows and piles that are not properly managed may spontaneously combust. Therefore, facilities should have appropriate fire control and suppression plans. These plans must provide for access for fire apparatus and for reliable, year-round water sources that are sufficient and at-hand. The history of mulch and dump fires elsewhere compounded by the difficulty in fighting those kinds of fires are serious concerns and some members of the Task Force emphasize that the Howard County Department of Fire and Rescue Services needs to be fully involved in the planning and implementation of fire control and suppression plans.

e. Composting and natural wood waste recycling operations generate truck traffic. Depending on the nature of the operation, truck traffic could damage roads or pose hazards to cyclists and pedestrians. Therefore facility entrances should be located on roads appropriate to the kind of traffic that the facility will generate. Limits on hours of operations and the amount of trucks may be required in some cases.

f. It seems likely that many people would consider composting and natural wood waste recycling facilities to be eyesores. Therefore appropriately sized buffers and siting may be required to screen the operations from neighbors and passers-by.

g. Violations need to be addressed promptly and effectively, particularly by the Department of Planning and Zoning, and this has not always been the case.

Other jurisdictions

At this time, no other Maryland counties are examining these issues with the same intensity as Howard County. No other counties have regulations as extensive as those proposed in this Report. Most counties do not specifically and explicitly regulate natural wood waste recycling facilities.

- Anne Arundel County allows natural wood waste facilities in certain industrial zones; see Zoning Regulation 18-11-132.
- Calvert County allows "forest product processing" as a conditional use in the Light Industrial Zoning District, see Zoning Regulation 3-1.02.
- In the Carroll County Agriculture Zoning District, a mulching operation is allowed as a conditional use.
- In Frederick County, wood waste recycling is allowed in the Agricultural and General Industrial zones as a special exception or as part of a solid waste overlay zone.
- In Harford County, mulch operations are allowed in the Agricultural and General Industrial zones as special exceptions.
- Montgomery County collects material from every household in the County and processes it at its facility in Dickerson. Composting is considered an agricultural activity for zoning purposes.
- Prince George's allows "landscape contractor" business operations in certain commercial zones, some as special exceptions.

Recommendations

The Council should seek to balance the important need to protect the public health and safety with the need to provide for in-County processing of recyclable and compostable waste products.

Given the Zero Waste movement, the Task Force has identified that there will be a significant shortage of organics processing capacity within the County in the immediate future. To that end, the Task-force supports the development of public and private well-managed facilities that

recycle organic materials. Therefore, the Task-force recommends that:

(1) the County identify and specifically evaluate county-owned property in the M1 & M2 Zoning districts and prioritize their use in public-private partnerships for processing and recycling organic materials; and

(2) property in M-1 and M-2 considered for acquisition by the county, be not only considered for the initial proposed use but also for these public-private partnerships.

To better understand the magnitude of the issues, the Task Force recommends that the County undertake a study of needs in the County for natural wood waste recycling and composting facilities including an evaluation of the amounts of feedstocks and the demands for product. This study should be completed within the next 6 months.

Agricultural areas have experienced residential development resulting in individuals with little understanding of farm operations moving into the area. Once there, these new residents find noises, insects, farm equipment on the roads, smells, and normal agricultural operations unexpected and objectionable. Therefore, the Task Force recommends that the County require the addition of a "right to farm" disclosure statement to all real estate transactions.

The Task Force recommends that the County provide greater resources for enforcement of its regulations, primarily to the Department of Planning and Zoning but also to the Department of Health and to the Department of Fire and Rescue Services. Also, because failure to follow the rules governing natural wood waste and compost activities may cause safety hazards, attention should be devoted to those activities as part of the County's efforts to control and regulate real estate development and site clearance. Thus these real estate development regulations should address matters like fencing and screening of waste piles and other measures to reduce hazards to children and neighbors.

Because many of the concerns related to facilities can be better addressed if the facility is enclosed, the Task Force recommends that the County explore using incentives to help operators cover the cost of putting a NWWRF or composting facility in buildings.

Reducing waste is a critical strategic component of both saving the County money and building a responsible and sustainable society, therefore the Task Force recommends that the County implement an educational campaign designed to teach people how to reduce or eliminate food waste.

The Task Force notes that other jurisdictions have experienced fire incidents involving natural wood waste operations. The Task Force recommends that the Department of Fire and Rescue

Services, in consultation with interested citizens with appropriate expertise, both proactively inspect facilities and address the matter in the County Fire Code. The Task Force has received some suggestions from the Department and, although some members felt that the suggestions are insufficient, the Task Force believes the suggestions are a step forward and thus endorses them:

Add to section 31.3.6.3.5 of the Fire Code:

- If the operation is located outside of a municipal water supply the following will apply. AHJ[6] will require a reliable certified water supply system with the capability to supply 1000 gallons per every 10,000 cubic feet of product. The supply system must be capable of producing a minimum of 250 gpm (preferred is 500gpm) for at least 2 hours.
- If this is a static water supply it is to be certified by an engineer and capable of supplying the amount set forth above. If it is below the minimum amount, then it must be capable of at least 30,000 gallons at all times. The maximum size of water supply needed may be based on the proposed operation and approved by the AHJ.
- Based on the amount of material on site other provisions such as sprinklers, pre-piped systems or constant monitoring of the pile may be required.
- The Mulch/Wood Processing operation shall be located within 5 travel miles of the closest Fire Station.
- A copy of the facility's NWWRF or composting permit application, including the Operations Plan and the Emergency Preparedness Manual, shall be sent to HCDFRS for review and recommendations back to DPZ.
- A copy of these shall be submitted to HCDFRS with each State permit renewal (5 year renewals).

Add to section 18.3.4 of the Fire Code.

- The locations of the static water supply must be approved by the AHJ.
- They are to be in proximity to the front entrance of the processing/storage operation and must have adequate area to allow a 45' turning radius for fire apparatus.
- The primary road needs to stay clear to access the processing/storage area adequately and must be paved or constructed so as to provide all weather, year round, access by fire apparatus with a weight of 75,000 GVW.

The Task Force recommends that the Zoning Regulations be revised to comport with the feedstock classification tier and type system created in State Law[7].

[6] "Authority Having Jurisdiciton"
[7] *See* generally COMAR Title 26, subtitle 4.

State law does not explicitly regulate the production of “mulch”. Rather the State considers operations of this sort as composting or as natural wood waste processing. Because some mulch processors may try to avoid regulation as either a composter or a natural wood waste processor, the Task Force recommends that the Zoning Regulations be clarified so that those who process “mulch” clearly fall within the ambit of composting or natural wood waste processing.

Applicants seeking State permits to operate composting or natural wood waste processing facilities are not required to notify the County or other local stakeholders. The Task Force recommends that, as part of any application under the Zoning Regulations for a Conditional Use or Administrative Exception for siting a facility, the applicant must submit to DPZ a copy of the State permit application including the applicant’s Operations Plan and the Emergency Preparedness Manual. This measure does not require the applicant to produce a new Plan or Manual, but merely requires that DPZ get a copy.

Similarly, applicants seeking State permits to operate composting or natural wood waste processing facilities are not required to notify the County Department of Fire and Rescue Services. The Task Force recommends that DPZ be required to submit to HCDFRS a copy of the State permit application including the applicant’s Operations Plan and the Emergency Preparedness Manual. HCDFRS should review the applicant’s Operations Plan and Emergency Preparedness Manual, including an evaluation of the adequacy of the water supply, and notify both the applicant and the DPZ of any deficiencies or recommendations.

State law requires the County to include all recycling facilities in the County’s Solid Waste Management Plan and reports; however, operators of composting and natural wood waste facilities are not required to notify the County of their activities. Therefore, the Task Force recommends that the Solid Waste Management Plan include these facilities and that operators of composting or natural wood waste processing facilities, or other waste processors, be required to report on their activities to DPW. Typically, sending a copy to DPW of annual reports sent to the State will be sufficient.

Holders of State permits to operate composting or natural wood waste processing facilities are required to renew periodically the permits. Today, the County is not notified of the renewal application or approval, therefore the Task Force recommends that the permit holder be required to submit an updated Operations Plan and Emergency Preparedness Manual to DPZ at the time of each State permit renewal. DPZ should review the submission and take appropriate action if action is required.

The Task Force recommends that the Zoning Regulations clarify what is included "in support of wood waste operations." The Task Force recommends that this concept include the means used to conduct any phase of the wood waste process, including but not limited to feedstock receiving, feedstock preparation, active decomposition, curing mulch storage, mulch equipment storage or maintenance, storing finished product, or storage of any solid waste or non-compostable materials. "In support of mulching" should not be defined to include: 1) areas used to store mobile, general purpose farm equipment such as tractors and backhoes; or 2) roads used for transport to the wood waste facility or between separate wood waste areas on a site.

One of the most contentious issues before the Task Force was whether to treat parcels differently because they are in an agricultural preservation program.

Some members think that all farms should be subject to the same rules, standards, and criteria, regardless of the status as in, partly in, or not in agricultural preservation. This is of particular concern to farmers that entered State or County agricultural preservation programs quite a while ago, for relatively little money and no expectation that they were giving up anything other than their residential development rights.

Other members think that because the taxpayers have purchased certain rights on agricultural preservation land, the taxpayers are entitled to ensure that the activities allowed there are "agricultural" and not "industrial or commercial" and in accordance with the preservation easements for these properties. Note: there was disagreement among the members about how to interpret and apply those easement restrictions. The DRPS notes that it is not trying to control agricultural preservation parcels, but simply want the County to follow the agricultural preserve guidelines and intent. DRPS further notes that other citizen groups also feel strongly about this issue.

The Task Force recognizes that the nature of farming evolves and that economic viability is of paramount importance. Never-the-less, on the narrowest of voting margins, the Task Force adopted a motion to recommend that:

> for new natural wood waste recycling operations that are on Howard County or State agricultural preservation parcels, 75% of the end product must be used on the farm[8] or

[8] Those who made the motion indicate that the intent is to allow for farming needs on agricultural preservation lands but to prevent an industrial facility from using the property since 75% of the product must stay on the farm. It is not clear whether material that is delivered with agricultural products, e.g, in the root balls for trees and shrubs, counts as "used on the farm".

another farm that is farmed by the same operator. Existing facilities that are operating legally are exempt.[9]

An amendment to CB20-2014 explicitly removed proposed new language that would have allowed NWWR as a conditional use on agricultural preservation parcels. CB20 was intended to return the zoning regulations to the language that existed before Comprehensive Zoning until the Task Force completes its recommendations and the Council acts on what it determines to be appropriate. DRPS points out that CB20 did not restrict NWWR as it has never been defined in any of the zoning regulations; CB20 did restrict composting and that mulching was always allowed as a farming activity, and on all properties as a conditional use.

The current Zoning Regulations explicitly address agricultural preservation parcels allowing limited commercial uses, often with size limits. See § 106.1 of the Zoning Regulations. Some of these uses, though not directly related to farming, have often been engaged in by farm families purportedly to help support the economic viability of farming. The members who represent agricultural interests add that agriculture is a commercial activity that necessarily includes processes that may be characterized as "industrial". And that the need for these activities on farms is growing. The members from the DRPS feel strongly that larger NWWR facilities are not farming and allowing them on preservation parcels promotes the sale of preservation parcels at low prices to NWWRF operators who are attracted by the price and because preservation parcels are taxed at agricultural rates.

The rest of the Task Force's recommendations pertain to the County's Zoning Regulations. The Task Force held extensive, vigorous discussions about the kinds of limitations, if any, that should be imposed of NWWR and composting facilities. Appropriate limits vary depending on the type and size of facility. Please note that the table consists of multiple categories: the first categories cover natural wood waste recycling facilities and the second group of categories covers composting facilities. The category is indicated in the first column and includes the subcategory, 1 through 18, which aligns with MDE regulations. Under the column headed "MDE Role", the table shows whether a permit is required. Under the column headed "MDE criteria", the table indicates the basic distinguishing factors between categories. Under the column headed "Howard County Role", the table shows whether a County permit is needed and, if so, which type. The last two columns indicate the criteria recommended for the Zoning Regulations for that category and any dissenting comments from Task Force members.

[9] The Department of Planning and Zoning reports that making a determination about which facilities are pre-existing will be relatively easy, but "operating legally" will be difficult since the current zoning regulations are not clear about wood waste or compost processing accessory to farm operations.

It should be noted that the various recommended criteria were discussed at length and voted on. Where a vote was taken, the results are indicated in the "Criteria" column. Roll call votes, when taken, are available in the Task Force minutes, which are posted on the Task Force web site.

Natural Wood Waste and Composting

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Natural Wood Waste Recycling (NWWR)	1	No permit	COMAR § 26.04.09.02.B(5)(b) exempts single individual / business that recycles materials generated on site.	No permit, DPZ enforcement.	Allow by right on farms including County and State agricultural preservation easements, using MDE criteria regarding on site generated materials. Use Zoning definition of farm, but incorporate MDE definitions of wood waste and wood waste recycling facility (Section 26.09.02.B.). Minimum parcel size of 3 acres (Zoning defines "farm" as at least 3 acres). May occupy up to 10% of the land, with a maximum of 5 acres. Must have and be implementing a conservation plan. Must comply with MDE General Restrictions (COMAR § 26.09.03). Setbacks: 50 ft to property line; 300 ft to adjoining residence; 100 ft to a stream or well, except 200 ft to a down gradient domestic well. Maximum processing pile height of 10 feet. Meet Howard County Fire Code. Provide processing facility site information to HCDFRS for advice on fire suppression. VOTE: 13 yes; 5 no	Dayton Rural Preservation Society ("DRPS") supports NWWR for farming uses ("on the farm – for the farm"). Given the risks inherent to NWWR (fire, air quality, well pollution) and the fact that no permit is required in the category, DRPS recommends the following modifications: - Limited to 10% of the farm or one acre maximum (all material generated on site so one acre should be sufficient). - Setbacks 500 feet to adjoining properties - Adequate water supply nearby for fire suppression. - All generated material used on site (per MDE) T. Mariani: • Limit process area to 3 Acres; • Set Backs: o Less than 1 acre 100 feet to property line, 300 feet to nearest residence or school o 1 - 2 acres 200 ft to PL, 300 ft nearest residence or school o Over 2 acres 300 feet to PL, 500 feet to residence or school

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Natural Wood Waste	2	NWWR Permit COMAR, Title 26, Subtitle 04, Chap. 09.	Any properties that recycle materials not generated on site, but to be used on site	No permit, DPZ enforcement	Allow by right on farms in RC and RR, including County and State Ag. Preservation easements. Use Zoning definition of farm, but incorporate MDE definitions of wood waste and wood waste recycling facility (Section 26.09.02.B.) May occupy up to 10% of the land, with a maximum of 5 acres. Vote: 14 yes; 4 no MDE Application must be submitted to County Executive, DPW Environmental Services, Health Dept and Howard Soil Conservation District. Must comply with MDE General Restrictions (COMAR § 26.09.03). Must have and be implementing a conservation plan. Setbacks: (MDE setback is simply 50 ft to property line) 100 ft to property line; 300 ft to adjoining residence; 100 ft to a stream or well, except 200 ft to a down gradient domestic well. Meet MDE General Restrictions. (COMAR § 26.09.03) Meet MDE General Requirements and Operating Procedures regarding buildings, screens, buffers, access	DRPS supports NWWR for farming uses ("on the farm – for the farm"). Given the risks inherent to NWWR (fire, air quality, well pollution) and the increased size of this type facility, DRPS recommends the following modifications: - Limited to 10% of farm or two acres max. - HoCo Sec 128 permit required - 500 feet from adjoining properties, streams and wells. - At elevation less than 25 feet above surrounding area. - Controlled run-off. - Adequate source of water as designed by a Maryland Licensed Fire Protection Engineer, and approved by the Office of the Fire Marshal. - Noise kept below 55 dBA at set back. - Misting to control dust. - Operating hours 7:30 AM to 4:30 PM. T. Mariani: • Limit process area to 3 Acres • Set Backs: o Less than 1 acre 100 feet to property line, 300 feet to nearest residence or school o 1 - 2 acres 200 ft to PL, 300 ft nearest residence or school o Over 2 acres 300 feet to PL, 500 feet to residence or school

					roads, environmental protection, Emergency Preparedness Manual; cleanliness, sanitation, fire control and other requirements (COMAR § 26.09.07). Provide processing facility site information to HCDFRS for advice on fire suppression. The Fire Marshal's office shall review and comment on the fire safety plan that is included in the MDE permit application. VOTE: 13 yes; 5 no	

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Natural Wood Waste	3	NWWR Permit COMAR § 26.04.09	Any properties that recycle materials not generated on site, that may be both used on site and distributed off site	DPZ administrative permit (Sec. 128.0 of Zoning Regs)	Allowed on farms in RC and RR, including County and State Ag Preservation easements. Use Zoning definition of farm, but incorporate MDE definitions of wood waste and wood waste recycling facility (Section 26.09.02.B.) Up to 10% of the parcel up to a maximum of 5.5 acres (use MDE definition of what is included in facility area. Remainder of land to be actively farmed or managed per current Howard Soil Conservation Plan Setbacks: • 200 ft to property line, but can be reduced to a minimum of 100 ft by DPZ if site conditions, project features and HSCD Conservation Plan provide adequate buffer; (MDE setback is 50 ft to property line) • 300 ft to adjoining residence and must comply with NRCS Standard #380[10] for buffer & windbreak as part of HSCD conservation plan; VOTE: 14 yes; 2 no; 2 absent • 100 ft to a stream or well, except 200 ft to a down gradient domestic well.	DRPS believes the previous categories meet the needs of the farming community and views this type of facility (shipping product off site) as a commercial/industrial operation not appropriate for farms in Agricultural Preserve. DRPS recommends the following: - HoCo Conditional Use Hearing - RC and RR zoned property up to 10% of property but no more than 2 acres. Not allowed on HoCo or State Ag preserve. - Set back at 500 feet from adjacent properties, streams and wells. - At elevation less than 25 feet above surrounding areas. - Run-off controlled. - Adequate traffic and roads study - Adequate water supply as designed by a Maryland Licensed Fire Protection Engineer[11], and approved by the Office of the Fire Marshal. - Misting to control dust. - Noise at 55 dB at set back. - Operating hours from 7:30 AM to 4:30 PM. - All permits approved and supplied to County before hearing. - Past violations considered by hearing examiner. [Note: Some of above addressed via MDE permit]

[10] *See* http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1046943.pdf

[11] Maryland licenses "professional engineers". A license allows the engineer to practice within the engineer's area of competency. Fire protection is one such specialty. *See* http://www.dllr.maryland.gov/license/pe/

					Administrative permit application must include MDE Application (submitted to County Executive, DPZ, DPW Environmental Services, Health Dept and Howard Soil Conservation District). Meet MDE General Restrictions (COMAR § 26.09.03). Meet MDE General Requirements and Operating Procedures regarding buildings, screens, buffers, access roads, environmental protection, Emergency Preparedness Manual; cleanliness, sanitation, fire control and other requirements (COMAR § 26.09.07). Provide processing facility site information to HCDFRS for advice on fire suppression. The Fire Marshal's office shall review and comment on the fire safety plan that is included in the MDE permit application. OVERALL VOTE: 13 yes; 2 no; 3 absent	T. Mariani: • Limit Process area to 5% of site with maximum of 5 acres • 75% of product to be used on site • Set Backs: o Up to 1 acre 100 ft to PL, 300 feet to residence or school o 1-2 acres 200 feet to PL, 300 feet to residence or school o 2-3 acres 300 ft to PL, 500 feet to residence or school o Over 3 acres 500 ft to PL, 1000 ft to residence or school • Not allowed on any farm in the Ag Pres program

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Natural Wood Waste	4	NWWR Permit COMAR § 26.04.09	Same as #3, but larger: Any properties that recycle materials not generated on site, that may be both used on site and distributed off site	Conditional Use (Sec. 131.0.N of Zoning Regulations)	May be allowed on farms in RC and RR, including County and State Ag Preservation easements. Use Zoning definition of farm, but incorporate MDE definitions of wood waste and wood waste recycling facility (COMAR § 26.09.02.B.) Up to 10% of the parcel up to a maximum of 10 acres Remainder of farm to be actively farmed or managed per current Howard Soil Conservation Plan. Setbacks: • 300 ft to property line; (MDE setback is 50 ft to property line) • 500 ft to adjoining residence; • The Hearing Examiner may reduce setbacks to property lines and an adjoining residence if recommended by DPZ (based on site conditions, project features and HSCD Conservation Plan providing adequate buffer) and if there is no adverse affect; • 100 ft to a stream or well, except 200 ft to a down gradient domestic well; • VOTE on setbacks: 11 yes; 2 no; 2 abstained, 3 absent Conditional use application must include MDE Application (submitted to County Executive, DPZ, DPW Environmental Ser vices, Health	DRPS recommendations identical to #3 above – limit to 2 acres. DRPS believes these type of larger NWWR facilities (> 2 acres) are true industrial operations that do not belong in rural communities since these communities do not have adequate municipal fire fighting water supplies and emergency access, nor adequate road infrastructure and capacity to support commercial/industrial truck traffic, are incompatible with the character of the surrounding community, run-off may pollute wells, and dust and spores will contaminate air quality, and heavy equipment noise produces damage to the surrounding quality of life. These type of larger facilities should be limited to M1/M2 lands and strictly controlled as noted in the category below. T. Mariani: • Should not be allowed in the RC or RR zone districts and most emphatically not on Ag Pres farms. • But if allowed set backs should be as indicated in comments regarding NWW # 3

					Dept and Howard Soil Conservation District). Meet MDE General Restrictions (COMAR § 26.09.03) Meet MDE General Requirements and Operating Procedures regarding buildings, screens, buffers, access roads, environmental protection, Emergency Preparedness Manual; cleanliness, sanitation, fire control and other requirements (COMAR § 26.09.07) Provide processing facility site information to HCDFRS for advice on fire suppression. The Fire Marshal's office shall review and comment on the fire safety plan that is included in the MDE permit application. Conditional use criteria (vote on this paragraph: 15 yes; 3 absent): • Windbreak per NRCS standard #380[12] and perhaps Misting • Adequate access for trucks & emergency vehicles (road classification, sight distance) • Adequate year round water supply and sufficient access to fire equipment (as determined by DFRS vs MDE permit requirements) • Limit operation to 7 am- 6 pm for Monday- Saturday • The Hearing Examiner can impose other conditions to	

[12] *See* http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1046943.pdf

					prevent adverse impacts on adjoining parcels. Requires submission of a Site Development Plan(SDP) to be reviewed by County agencies (addresses access, traffic, fire code, stormwater management, etc). SDP can't be approved until MDE permit is issued. VOTE: 10 yes; 5 no; 3 absent	

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Natural Wood Waste	5	NWWR Permit COMAR § 26.04..09	Any properties that recycle materials not generated on site, that may be both used on site and distributed off site	Permitted by right in M-1 and M-2 district, but require a conditional use if within 300 ft of a residential zone or school. Vote: 12 yes; 2 no; 4 absent	Requires submission of a Site Development Plan for review by County agencies (addresses access, traffic, fire code stormwater management, etc.). SDP submission to include MDE permit application. Must meet MDE General Restrictions (COMAR § 26.04.11.04.B) Meet MDE General Requirements and Operating Procedures regarding buildings, screens, buffers, noise, hours of operation, access roads, environmental protection, Emergency Preparedness Manual; cleanliness, sanitation, fire control and other requirements (COMAR § 26.09.07) Require 300 ft setback from residentially zoned properties or a school, but allow potential for Hearing Examiner to grant a variance where justified. Vote: 11 yes; 3 no; 4 absent Maximum feedstock pile height of 9 ft; maximum compost processing pile height of 8 feet. Require misting or water injection during grinding. Vote: 10 yes, 5 no, 3 absent Facilities must meet MDE requirements of controlled access and have at least a 6 ft high perimeter fence Vote: 13 yes; 2 no; 3 absent	DRPS supports these type of facilities for County sustainability or commercial operation. Given the significant safety and health risks associated with NWWR, DRPS recommends the following changes: Other permit criteria: • Setbacks from residential property lines of 500 feet • Setback from streams - 500 feet • Forest or landscape buffers (minimum width of 100 ft) • Run-off controlled and control of smell to neighboring properties. • Grinders, processing and windrows in an enclosed facility • Adequate access for trucks & emergency vehicles (traffic and road study) • Limits on days and hours of operation -7:30 Am to 4:30 PM, M-Sat • Requires submission of all approved permits to County • Noise at less than 55 dBA at setbacks • Fire hydrant fed by the municipal water supply capable of 1000 gpm at 20 psi within 1000 feet of facility with adequate roads for fire trucks as approved by the Office of the Fire Marshal. The County can impose other conditions that are appropriate to prevent adverse impacts on adjoining parcels. T. Mariani: Set Backs:

					Limit hours of operation to 7am -6 pm Monday- Saturday. SDP can't be approved until MDE permit is issued and submitted to County. Vote: 10 yes; 5 no; 3 absent	• 300 feet from Pl of residential districts or school site • 1000 feet from residence or school structure unless the process area is fully enclosed

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Composting Tier 1 (Yard waste and other low risk materials approved by MDE. (see definition in COMAR § 26.04.11.02 (37)	6	No permit COMAR §§ 26.04.11.05 (c)(1) and 26.04.11.06.C	Farms that compost organic materials generated and used on the site or other sites controlled by the same operator (No size limit for farms) Must meet MDE General Restrictions Type 1 materials (grass and leaves) do not include manure, food scrap, seafood scrap	No permit, DPZ enforcement	Allowed by right on farms, including County and State agricultural preservation easements, in all residential districts. Allows composting of dead animals raised on the farm per NRCS standard #316[13]. Use Zoning definition of farm, but incorporate components for MDE definition (COMAR § 26.04,11.02.17.a & b). Add MDE definition of composting. Minimum parcel size of 3 acres (Zoning defines "farm" as at least 3 acres). May occupy up to 5% of the land, to a maximum of 5 acres but when 4 foot tall piles are used, the facility may use up to 10% of the parcel's acreage Must have and be implementing a Howard Soil Conservation plan, as well as a nutrient management plan if required by MDA. Setbacks: 50 ft to property line; 300 ft to adjoining residence or school; 100 ft to a stream or well, except 200 ft to a down gradient domestic well. Vote: 12 in support; 6 opposed Must comply with MDE General	DRPS supports composting by farms in this category with the following added provisions: - Size limited to 10% of farm or 2 acres max. since all material must come from farm (i.e. would be limited) and there is no permit or overview required. This was original proposal by farming community. We believe no size limit is a dangerous precedent. T. Mariani: Set Backs: • Up to 1 acre 100 ft to PL, 300 ft to residence or school • 1-2 acres 200 ft to PL, 300 ft to residence or school • 2-5 acres 300 ft to PL, 500 ft to residence or school

[13] *See* http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_026388.pdf

					Restrictions (COMAR § 26.04.11.04.B) Facilities must meet MDE requirements of controlled access and have at least a 6 ft high perimeter fence. Maximum feedstock pile height of 9 ft; maximum compost processing pile height of 8 feet. Meet Howard County Fire Code. Encourage provision of composting site information to HCDFRS for advice on fire suppression. VOTE: 14 yes; 2 no	

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Composting Tier 1	7	No permit COMAR §§ 26.04.11.06.E and 26.04.11.05.C	Farm and residential properties using 5,000 SF or less area. Material to be used on site.	No permit, DPZ enforcement	Allowed by right on all farms, including County and State agricultural preservation easements. Also single family detached lots and community open space or gardens in all zoning districts if materials are used on site. May not exceed 10% of parcel acreage. No setback if pile is 4 ft or less within an enclosing frame or bin. Freestanding piles are to be set back 2.5 ft for each 1 ft of pile height. Must comply with MDE General Restrictions (COMAR § 26.04.11.04.B) Maximum feedstock pile height of 9 ft; maximum compost processing pile height of 8 feet. Meet Howard County Fire Code. Encourage provision of composting site information to HCDFRS for advice on fire suppression. On farms, allows composting of dead animals raised on the farm. VOTE: all supported	

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Composting Tier 1	8	No permit COMAR § 26.04.11.06.D	Farm facility using no more than 40,000 SF that: -complies with General Restrictions in COMAR § 26.04.11.04.B --has a soil conservation & water quality mgt plan - composts only organic material generated on site or another farm controlled by the same operator, but may compost animal manure, bedding & Type 1 feedstocks regardless origin. -May distribute off-site.	No permit, DPZ enforcement	Allowed by right on farms in all districts, including County and State agricultural preservation easements. Must meet MDE thresholds and NRCS standard #317[14]. Setbacks: 50 ft to property line; 300 ft to adjoining residence; 100 ft to a stream or well, except 200 ft to a down gradient domestic well. Must comply with MDE General Restrictions (COMAR § 26.04.11.04.B). Maximum feedstock pile height of 9 ft; maximum compost processing pile height of 8 feet. Meet Howard County Fire Code Encourage provision of composting site information to HCDFRS for advice on fire suppression. Allows composting of dead animals raised on the farm. VOTE: 15 support; 2 opposed; 1 abstain	DRPS supports composting by farms in this category but believes that the COMAR rules called out here for Type 1 compost do not allow for dead animals. That is covered under Type 2 composting later in this document. T. Mariani: Set Backs: 100 ft to PL, 300 ft to residence or school

[14] *See* http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_026122.pdf

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Composting Tier 1	9	Tier 1 Composting Permit Sec.26.04.11.06.D	Farm facility greater than 40,000 SF that complies with General Restrictions (COMAR §§ 26.04.11.04.B and 26.02.03.00) & all MDE permit requirements. MDE doesn't limit off site distribution	DPZ administrative permit and enforcement	Allowed on farms in RC and RR, including County and State Ag Preservation easements up to a maximum of 10% of the parcel up to 5.5 acres (use MDE definition of what is included in facility area). Remainder of land to be actively farmed or agriculturally managed per current Conservation Plan. Zoning permit submission to include MDE permit application (to be shared with DPW and DFRS). Setbacks: 50 ft to property line; 300 ft to adjoining residence; 100 ft to a stream or well, except 200 ft to a down gradient domestic well. Must meet MDE stormwater management requirements Must meet MDE General Restrictions (COMAR § 26.04.11.04.B) No limits on hours of operation. (10 support; 5 oppose, 1 abstained) Compost facility meets: NRCS standard #316, NRCS standard #317 for design; NRCS standard #380 (includes buffers and dust suppression)[15]; and nutrient mgmt. plan per MDA standard. Maximum feedstock pile height of 9	DRPS supports composting by farms in this category with the following changes: - Maximum size of 10% of farm, up to 2 acres. - Majority (75%) of end product is for use on the farm or other farms owned by operator or is shipped as part of the farming crop (food, trees, etc.) but not as an end product (mulch, compost) for commercial distribution off-site. - Operations limited to daylight hours - Adequate water supply as designed by a Maryland Licensed Fire Protection Engineer, and approved by the Office of the Fire Marshal. - Type 1 only – no animal mortality – as per this COMAR category. T. Mariani: • Set Backs: • Up to 1 acre 100 ft to PL, 300 ft to residence or school • 1-2 acres 200 ft to PL, 300 feet to residence or school • 2-3 acres 300 ft to PL, 500 ft to residence or school • Over 3 acres 300 ft to PL, 1000 ft to residence or school • A minimum of 75% of product produced to be used on the farm • A maximum of 5% of site can be used as process area

[15] *See* http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/references/?cid=nrcs143_026849

					ft; maximum compost processing pile height of 8 feet. Meet Howard County Fire Code Encourage provision of composting site information to HCDFRS for advice on fire suppression. Allow composting of dead animals raised on the farm. Vote: 10 support; 5 oppose; 2 absent	

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Composting Tier 1	10	Tier 1 Composting Permit COMAR § 26.04.11.05 &.06	Same as above: Farm facility greater than 40,000 SF that complies with General Restrictions (COMAR §§ 26.04.11.04.B & 26.02.03.00.) and all MDE permit requirements. MDE doesn't limit off site distribution	Conditional use	Allowed on farms in RC and RR, including Ag Preservation easements up to a maximum 10% of the parcel up to a maximum of 7.5 acres. Remainder of land to be actively farmed or managed per current Conservation Plan. At least 50% of the finished compost is to be used on the farm or another property farmed by the operator or is shipped as part of the farming crop (food, trees, etc.), but not as an end product for distribution off-site. Allow s composting of dead animals raised on the farm. Conditional use submission to include MDE permit application (share with DPW and DFRS), Must meet MDE General Restrictions (COMAR § 26.04.11.04.B) Compost facility meets: NRCS standard #316, NRCS standard #317 for design; NRCS standard #380 (includes buffers and dust suppression)[16]; and nutrient mgmt. plan per MDA standard. Meet Howard County Fire Code maximum feedstock pile height of 9 ft; maximum compost processing pile height of 8 feet. and other requirements related to access and fire suppression based on proposed design. Conditional use criteria:	DRPS supports composting by farms in this category with the following changes: - Maximum size of 10% of farm, up to 2 acres. - Majority (75%) of end product is for use on the farm or other farms owned by operator or is shipped as part of the farming crop (food, trees, etc.) but not as an end product (mulch, compost) for commercial distribution off-site. - Operations limited to daylight hours - Adequate water supply as designed by a Maryland Licensed Fire Protection Engineer, and approved by the Office of the Fire Marshal. - Type 1 only – no animal mortality – as per this COMAR category. T. Mariani: • Set Backs: o Up to 1 acre 150 ft to PL, 500 ft to residence or school o 1-2 acres 200 ft to PL, 500 ft to residence or school o 2-3 acres 300 ft to PL, 500 ft to residence or school o Over 3 acres 300 ft to PL, 1000 ft to residence or school • Limit size of process area to 5 acres or 5% of site which ever is less • 75% of product to be used on

[16] *See* http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/references/?cid=nrcs143_026849

					• Setbacks: 150 ft to property line; 500 ft to adjoining residence; 100 ft to a stream or well, but 200 ft to a down gradient domestic wells • Adequate site access for trucks & emergency vehicles (road classification, driveway entrance) • Reliable, year round water supply as determined by DFRS • Operating limited to daylight hours., Monday - Saturday The Hearing Examiner can impose other conditions that are appropriate to prevent adverse impacts on adjoining parcels based on comments from reviewing agencies (see General Criteria for all conditional uses). After conditional use approval, require submission of a Site Development Plan to be reviewed by County agencies (addresses detailed design related to regulations on access, traffic, fire code, stormwater management, etc). SDP can't be approved until MDE permit is issued. Copies of a permit renewal or revision by MDE must be submitted to DPZ and shared with DPW and DFRS. Vote: 10 support; 6 oppose; 2 absent	the farm

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Composting Tier 1	11	Tier 1 Composting Permit	Non-farm operations Non-farm operations shipping compost as an end product for use by others.	M-1 and M-2 zoning districts permitted with a Solid Waste Overlay.	M1 and M2 properties only with Solid Waste Overlay. Zoning petition to include MDE permit application (share with DPW and DFRS). Must meet MDE General Restrictions (COMAR § 26.04.11.04.B) and noise restrictions (COMAR § 26.02.03.00) Shall be located within an enclosed facility unless the applicant can demonstrate that the proposed design, setbacks, and technology will prevent an outdoor facility from becoming a nuisance that adversely affects neighboring properties. The Zoning Board may limit hours of operation, require increased setbacks or buffering, or impose other conditions to prevent adverse impacts on adjoining property as part of the SW zoning case decision. A fire hydrant shall be located on site or within 400 ft. Requires submission of a Site Development Plan to be reviewed by County agencies (addresses access, traffic, fire code, stormwater management, etc). SDP can't be approved until MDE permit is issued and submitted to County. VOTE: 12 support; 5 oppose; 1 absent	DRPS supports composting for County sustainability with the following changes: - Limits on days and hours of operation -7:30 AM to 4:30 PM, M-Sat - Municipal Fire hydrant capable of 1000 GPM at 20 PSI within 1000 feet of facility with adequate roads for fire trucks as approved by a certified fire safety engineer. - SDP can't be approved until MDE permit is issued and past compliance is considered. - Facility is fully enclosed T. Mariani: Set Backs: 300 ft to PL, 1000 ft to residence or school unless the process area is fully enclosed

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Composting Tier 2 Source separated food scraps, manure, food processing materials, etc. per MDE as "moderate" risk materials approved by MDE. (see definition in Sec.26.04.11.02 (38)	12	No permit § 26.04.11.05.C(1)	Farms that compost organic materials generated and used on the site (No size limit)	No permit DPZ enforcement	Allowed by right on farms including County and State agricultural preservation easements, in all residential districts. Use Zoning definition of farm, but incorporate components for MDE definition (§ 26.04,11.02.17.a&b). Add MDE definition of composting. Minimum parcel size of 3 acres (Zoning defines "farm" as at least 3 acres). May occupy up to 5% of the land, and maximum of 5 acres. Facility setbacks: 50 ft to property line; 300 ft to adjoining residence; 100 ft to a stream or well, except 200 ft to a down gradient domestic well. Must have and be implementing a conservation plan, as well as a nutrient management plan if required by the State. Must comply with MDE General Restrictions (COMAR § 26.04.11.04.B) Compost facility design meets NRCS standard #317[17]; nutrient management plan per MDA standard. Meet Howard County Fire Code. Maximum feedstock pile height of 12 ft; maximum compost processing	DRPS supports composting by farms in this category with the following added provisions: - Size limited to 10% of farm or 2 acres max. since all material must come from farm (i.e. would be limited) and there is no permit or overview required. This was original proposal by farming community. - Control of smell at neighboring properties if manure is used. - Dead animals at percentages specified in composting guidelines. T. Mariani: Set Backs: • Up to 1 acre 100 ft to PL, 300 ft to residence or school • 1-2 acres 200 ft to PL, 300 ft to residence or school • over 2 acres 300 ft to PL, 500 ft to residence or school

[17] *See* http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_026122.pdf

					pile height of 8 feet. Encourage provision of composting site information to HCDFRS for advice on fire suppression. On farms, allows composting of dead animals raised on the farm. VOTE: 13 support; 6 oppose	

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Composting Tier 2	13	No permit § 26.04.11.05.C(3)	Farm and residential properties using 5,000 SF or less area (with 12 ft height limits for composting piles). Material to be used on site, but no limit on where generated	No permit DPZ enforcement	Allowed by right on all farms including County and State agricultural preservation easements on up to 10% of the farm. On farms, allow composting of dead animals raised on the farm. Allow community gardens by right in community open space, not to exceed 10% of the open space Allow on single family lots by right: • may compost only plant materials and certain animal waste, excluding meat, seafood, and dog and cat waste Vote: 13 yes; 0 opposed; • for single family detached lots, composting area limited to 100 sq ft. for lots up to an acre, plus an additional 100 sq ft / acre for larger parcels; Vote: 12 yes; 1 no • for single family attached lots, in-vessel composting is allowed up to 100 gallons; Vote: 11 yes; 2 no Define "composting facility" to include: feedstock receiving, active composting, composting storage and equipment storage. Farm compost facility design must comply with: MDE General Restrictions (COMAR § 26.04.11.04.B); NRCS standard #317; MDA nutrient mgmt. plan standard; and Howard County Fire	DRPS supports community and small farm composting for County sustainability with the following changes: - Any composting on community open space would need to meet HOA rules and HOA/community approval.

					Code. Maximum feedstock pile height of 12 ft ; maximum compost processing pile height of 8 feet. Encourage provision of composting site information to HCDFRS for advice on fire suppression. Community gardens and single family composting should use Agricultural Extension guidelines for composting. No setback if pile is 4 ft or less within an enclosing frame or bin. Freestanding piles setback 2.5 ft for each 1 ft of pile height. Vote: 12 yes; 0 no; 6 absent Vote: 11 yes; 1 no; 5 absent	

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Composting Tier 2	14	Tier 2 Permit COMAR § 26.04.11.06.D	Farm facility of no more than 40,000 SF that: -complies with General Restrictions in COMAR § 26.04.11.04.B --has a soil conservation & water quality mgt plan - composts only organic material generated on site or another farm controlled by the same operator; animal manure and bedding regardless of place of generation; & Type 1 feedstocks regardless of place of generation. Also allows import of Type 2 feedstock (grocery stores, restaurants) for use on the farm.	No permit DPZ enforcement	Allowed by right on farms in all districts, including County and State agricultural preservation easements. Setbacks: 50 ft to property line; 300 ft to existing adjoining residence,; (Vote to increase to 100 ft but grandfather existing operations and allow reductions if there is a hardship failed: 6 yes; 9 no; 2 absent) 100 ft to a stream or well, except 200 ft to a down gradient domestic well. Must comply with MDE General Restrictions (COMAR § 26.04.11.04.B). Compost facility design meets NRCS standard #317; nutrient mgmt. plan per MDA standard. Meet Howard County Fire Code. Maximum feedstock pile height of 12 ft ; maximum compost processing pile height of 8 feet. Encourage provision of composting site information to HCDFRS for advice on fire suppression. On farms, allows composting of dead animals raised on the farm. no formal vote taken	T. Mariani: Set Backs: 100 ft to PL, 300 ft to residence or school

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Composting Tier 2	15	Tier 2 Permit Sec.26.04.11.06.C	Farm facility greater than 40,000 SF that complies with General Restrictions (COMAR § 26.04.11.04.B) & all MDE permit requirements. Allows food scrap and manure in addition to Type 1 materials	DPZ administrative permit (Sec.128.0.I of Zoning)	Allowed on farms in RC and RR, including County and State Ag Preservation easements up to a maximum of 10% of the parcel up to 5.5 acres (use MDE definition of what is included in facility area. Remainder of land to be actively farmed or managed per current Conservation Plan Zoning permit submission to include MDE permit application (share with DPW and DFRS). Setbacks: 50 ft to property line; 300 ft to adjoining residence; 100 ft to a stream or well, except 200 ft to a down gradient domestic well. Vote: 8 yes; 5 no; 5 absent Must meet MDE stormwater management requirements. Must meet MDE General Restrictions (COMAR § 26.04.11.04.B) and noise restrictions (COMAR § 26.02.03.00). Compost facility meets: NRCS standard #317 for design; NRCS standard #380 (includes buffers and dust suppression); and nutrient mgmt. plan per MDA standard. Meet MDE standards for height of feedstock and composting piles. Provide composting site information to HCDFRS for advice on fire suppression. Allows composting of dead animals	DRPS supports composting by farms in this category with the following changes: - Maximum size of 10% of farm, up to 2 acres. - Majority (75%) of end product is for use on the farm or other farms owned by operator or is shipped as part of the farming crop (food, trees, etc.) but not as an end product (mulch, compost) for commercial distribution off-site. - Operations limited to daylight hours - Adequate water supply as designed by a Maryland Licensed Fire Protection Engineer, and approved by the Office of the Fire Marshal. - Percentage of animal mortality per composting guidelines. T. Mariani: • 75% of product to be used on the farm • Set Backs: ○ Less than 1 acre 100 ft to PL, 300 feet to residence or school ○ 1-2 acres 200 ft to PL, 300 ft to residence or school ○ 2-3 acres 300 ft to PL, 500 ft to residence or school ○ over 3 acres 300 ft to Pl 1000 to residence or school • Limit process area to 5% of site or maximum of 5.5 acres ,

					raised on the farm All MDE permits in place and past compliance to be considered before § 128 permit is issued. (Vote: 8 for, 5 against, 5 absent)	

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Composting Tier 2	16	Tier 2 Permit COMAR § 26.04.11.05	Non- farms, as well as farm operations not covered above	Conditional use in RC and RR districts	Allowed on farms in RC and RR, including Ag Preservation easements up to a maximum 10 % of the parcel up to a maximum of 10 acres. Remainder of land to be actively farmed and be covered under a current Conservation Plan. (approved by voice vote) At least 50% of the finished compost is to be used on the farm or another property farmed by the operator or is shipped as part of the farming crop (food, trees, etc.) but not as an end product for distribution off-site Conditional use submission to include MDE permit application (share with DPW and DFRS), Must meet MDE General Restrictions (COMAR § 26.04.11.04.B) Compost facility meets: NRCS standard #317 for design; NRCS standard #380 (includes buffers and dust suppression); and nutrient mgmt. plan per MDA standard. Meet MDE maximum feedstock and compost processing pile height limits and other requirements related to access and fire suppression based on proposed design. Potential conditional use criteria, however, Hearing Examiner may modify:	DRPS supports composting by farmers in this category with the following changes: - Maximum size of 10% of farm, up to 2 acres. - Majority (75%) of end product is for use on the farm or other farms owned by operator or is shipped as part of the farming crop (food, trees, etc.) but not as an end product (mulch, compost) for commercial distribution off-site. - Operations limited to daylight hours - Adequate water supply as designed by a Maryland Licensed Fire Protection Engineer, and approved by the Office of the Fire Marshal. - Percentage of animal mortality per composting guidelines. T. Mariani: • Limit process area to 5% of site and maximum of 5.5 acres • 75% 0f product to be used on the farm • Set Backs: o Less than 1 acre 150 ft to PL, 500 ft to nearest residence or school o 1-2 acres 200 to PL, 500 ft to residence or school o 2-3 acres 300 ft to PL, 500 ft to residence or school o over 3 acres 400 ft to Pl , 1000 ft to residence or school • Only allowed on operating farms not on non farm sites

					• Setbacks: 150 ft to property line; 500 ft to adjoining residence; 100 ft to a stream or well, but 200 ft to a down gradient domestic well • Adequate site access for trucks & emergency vehicles (road classification, driveway entrance) • Reliable, year round water supply as determined by DFRS • Operating limited to Monday – Saturday during daylight hours The Hearing Examiner can impose other stricter or more lenient conditions that are appropriate to prevent adverse impacts on adjoining parcels based on comments from reviewing agencies (see General Criteria for all conditional uses). After conditional use approval, require submission of a Site Development Plan to be reviewed by County agencies (addresses detailed design related to regulations on access, traffic, fire code, storm water management, etc). SDP can't be approved until MDE permit is issued. Copies of a permit renewal or revision by MDE must be submitted to DPZ and shared with DPW and DFRS. Vote: 11 yes; 1 no; 1 abstain; 4 absent	

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Composting Tier 2	17	Tier 2 Permit	Non-farm operations Non-farm operations shipping mulch and compost as an end product to others	M-1 and M-2 zoning districts, only permitted via a Solid Waste Overlay.	Zoning petition to include MDE permit application (share with DPW and DFRS), Must meet MDE General Restrictions (COMAR § 26.04.11.04.B) and noise restrictions (COMAR § 26.02.03.00) which apply in industrial zones. Facilities must meet MDE requirements of controlled access as in Row 5 and have at least a 6 ft high perimeter fence Require 300 ft setback from residentially zoned properties or a school, but allow potential for Zoning Board to reduce where justified. The Zoning Board may require facility to be enclosed unless the applicant demonstrates that the proposed design and technology will prevent an outdoor facility from becoming a nuisance that adversely affects neighboring properties. Vote to require an enclosed facility: 2 yes; 11 no; 5 absent The Zoning Board as part of the SW zoning case decision may limit hours of operation, require increased setbacks or buffering, or other conditions to prevent adverse impacts on adjoining property. Approved by voice vote.	DRPS supports composting for County sustainability with the following changes: - Limits on days and hours of operation -7:30 AM to 4:30 PM, M-Sat - Fire hydrant capable of 1000 GPM at 20 PSI within 1000 feet of facility with adequate roads for fire trucks as designed by a Maryland Licensed Fire Protection Engineer, and approved by the Office of the Fire Marshal. - SDP can't be approved until MDE permit is issued and past compliance is considered. - Facility is fully enclosed T. Mariani: Set Backs: Require 300 ft from PL of adjacent residential zone or school site and 1000 ft from residential structure or school building unless the process area is fully enclosed

					A fire hydrant shall be located on site or within 400 ft. Requires submission of a Site Development Plan to be reviewed by County agencies (addresses access, traffic, fire code, stormwater management, etc). SDP can't be approved until MDE permit is issued. VOTE: 10 yes; 3 no; 5 absent	

Category		MDE Role	MDE Criteria	Howard County Role	Howard County Criteria (Zoning) – majority recommendations	Dissenting Comments
Composting Tier 3 Sewage sludge, biosolids, mixed municipal solid waste and other materials MDE determines to be a "higher" risk than Type 1 and 2 § 26.04.11.02 (39)	18	Tier 3 Composting Permit COMAR § 26.04.11.05	Non-farm operations	M-1 and M-2 zoning districts only permitted via a Solid Waste overlay.	No recommendation – this is beyond the scope of the Task Force	

Conclusion

Due to the evolution of practices and understanding composting, mulching, and natural wood waste recycling; new MDE regulations; the evolving needs of the farming community and the County; and the expected impact of new State requirements; the work of the Task Force in studying the issues suggests a much-needed update of the County's Zoning Regulations and approach to handling natural wood waste, farm waste, food waste, and similar feedstocks.

The Task Force urges the County Council to act judiciously and without unnecessary delay to ensure that adequate facilities are available in the County to handle organic solid wastes and that these facilities are designed, managed, sited, and operated so as to protect the public health, safety, and welfare.

APPENDIX

Report of Concerned Citizens of the Mulch/Composting Task Force

Submitted by the following Task Force members:

Rick Lober – Representing the County Executive
John Tegeris, PhD – Representing the Dayton Rural Preservation Society (DRPS)
Stu Kohn – Representing the Howard County Citizens Association (HCCA)
Brent Loveless – Representing Council District 3
Ted Mariani – President of Concerned Citizens of Western Howard County

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Introduction

The Howard County concerned citizens groups noted above appreciate the County Councils efforts in setting up a task force to discuss the evolving issues concerning composting, mulching and natural wood waste within the community. In particular, we thank both Mary-Kay Sigaty and Greg Fox who realized the importance of residential groups meeting with members of the farming community to better understand their needs and how composting plays an important role in their future. During the 24 meetings held from July 2014 to March 2015, the concerned citizens groups noted above also gained a better appreciation of the needs of the County with regard to sustainability and how composting and natural wood waste recycling (NWWR) plays an important role.

The concerned citizens groups, which will be referred herein collectively as the citizen groups, were often in the minority when various recommendations were voted on; however, the reasons for a "no" vote primarily concerned differences in opinion on the specifics (i.e. setbacks, pile heights, etc.). There is little question that the entire Task Force, including those in citizen groups, were in support of the overall need for composting and mulching by the farming community and the County. In fact, during the 24 meetings held during the July 2014 to March 2015 timeframe, the citizen groups gained a better appreciation of the needs of the County with regard to sustainability and how composting and natural wood waste recycling (NWWR) plays an important role. However, the citizen groups preparing this report felt very strongly that the Task Force turned a blind eye to serious concerns for communities that would adjoin the proposed NWWR facilities, namely:

- The health, safety and environmental concerns regarding large mulching and composting operations near residential properties and
- The potential placement of large, industrial based mulching and composting operations on land parcels in the Howard County and State of Maryland Agricultural Preserve Programs (ALPP and MALPF) that import the vast majority of their raw materials and sell the vast majority of their end product as a business not related to farming.

We are respectively submitting this report as part of the final report by the task force in order to better show where common ground was reached – in particular in support of the farming community – and to more fully outline the rationale for the concerns noted above.

In summary, while sustainability through composting, fertilizer-free farming which uses compost, and natural wood waste recycling which results in a product both needed on farms and for commercial sale all are excellent initiatives for a forward-looking County, there are numerous issues with these apparently benign processes that need to be closely considered before broad endorsement occurs.

The concerned citizens groups do support composting and NWWR for farming uses and do understand the importance of sustainability initiatives within the County. However, if Howard County is committed to growing these go green sustainability initiatives, it is incumbent on the County to incentivize large composting and NWWR operators to locate the industrial sized facilities required for these initiatives on suitable parcels of land that are appropriately located in M1/M2 zoned areas. In addition, the health and safety concerns of residents near such facilities on M1/M2 lands need to be considered. The rationale for these recommendations, and appropriate measures that can be taken to protect residents near such facilities, are covered in this report. Not only is this a common sense approach, but is specifically mandated by the Howard County Zoning Ordinance[1].

Background

We believe that the Task Force majority report does not fully consider the history of NWWR and composting regulations in the County and the strong opposition to placing large scale NWWR facilities in rural neighborhoods that led to the Task Force's creation. A brief review of that history will help set the stage for the citizen groups' recommendations and is given below:

- Changes promoted by the farming community and developers during the comprehensive rezoning process conducted in late 2013. These included both valid needs for composting by farmers and desires by commercial industry to place non-farming related businesses on agricultural preserve land. These changes also began to treat State of Maryland Agricultural Preserve lands differently than those in the County program – these programs fell under the same zoning guidelines up until the 2013 revision. The changes also removed a long standing restriction on the acceptance of wood waste as a farming activity within the County's definition of farming.

- Pre-submission meetings by commercial industry to place a 16 acre industrial mulching operation (all raw product brought in and all finished product sold) on a farm parcel in the Howard County Agricultural Preserve program within a community that was transitioning from rural conservation to rural residential in nature (Appendix M). This resulted in four community and County meetings

[1] Howard County Zoning Ordinance, 2013, Section 100. Legislative Intent, p.5
"1. To provide adequate light, air and privacy; to secure safety from fire and other danger…;
2. To protect the character, the social and economic stability of all parts of the County… and to protect and conserve the value of land and
3. To promote the most beneficial relationship between the uses of land and structures, and the road system which serves these uses, having particular regard for the potential amount and intensity of such land and structure uses in relationship to the traffic capacity of the road system, so as to avoid congestion in the streets and roadways, and to promote safe and convenient vehicular and pedestrian traffic movements appropriate to the various uses of land and structures throughout the County;…
7. To ensure that all development and land uses protect or enhance the natural, environmental, historic, architectural and other landscape resources of the County, especially highly fragile and environmentally important features such as floodplains, wetlands or steep slopes.
8. To preserve agricultural land."

where over 600 very concerned residents attended to voice their concerns regarding health, safety and quality of life issues if such an enterprise were to become a reality.

- A request for a zoning amendment (CB-20-2014), with the vocal support of many Howard County residents, was passed unanimously by the County Council which reversed many of the changes and "unintended consequences," made concerning composting/mulching in the 2013 rezoning process (Appendix O). In order to ensure that this amendment did not unduly restrict farming operations and new sustainability standards, the Task Force was created to examine these issues. In addition, during discussions leading up to these events, it became apparent that the definitions of composting and mulching along with the zoning regulations concerning these operations were often intermixed for what are two very different processes and needed a much more detailed treatment within the regulations. DPZ was also aware of evolving State guidelines that had not been incorporated into the zoning regulations along with new definitions such as NWWR. In summary, it was clear that a much more detailed review of these evolving processes and farming community needs was required.

- In parallel with Task Force activities, the Maryland Department of the Environment (MDE) issued draft guidelines on composting. Unfortunately, the MDE refused to participate or even meet with the Task Force even though the Director of DPZ invited them. This would have been an excellent forum for the Task Force to learn more about MDEs intent and the overall processes involved and an excellent opportunity for the MDE to consider concerns by the residential community. It should also be noted than the MDE has not yet updated its policies on Natural Wood Waste Recycling (NWWR) which were recommended as the base for minimum guidelines.

- In parallel with Task Force activities, further needs and programs that promote sustainability within the County have arisen as have the continued pressures on the farming community to move to organic farming or decreased use of chemical fertilizers in order to better protect the environment. At the same time residential homes continue to be built in Howard County, many near farms and industrial areas. These residents would be put at risk if large scale industrial composting and mulching facilities are allowed to operate in close proximity to these communities.

- During the last two years, the County also pushed forward the conversion of existing Solid Waste zones to residential development, and combined with the underutilization and decommissioning of existing County NWWR facilities, this has led to justifying the consideration of large scale commercial mulching/composting requests in residential transitional areas countywide.

Task Force Purpose

Given the events above, the Task Force was created to act as a forum between the farming community, industrial NWWR operators and residential groups to make recommendations to the Howard County Council concerning composting and mulching operations. The citizens groups feel that there were very good reasons for setting up the Task Force and welcomed the opportunity to discuss issues with the farming community. There is no question that a better understanding of the issues and

concerns of all participants has resulted from this process. We should note the concerned citizens on the Task Force offered potential compromises on a variety of issues but the majority of these propositions were rejected by the farming community. Therefore, key differences in opinion on important issues addressed in the majority report remain.

Definitions

During the lead up to the Task Force and over the 9 months of discussion, it became very clear that the definitions of the mulching (NWWR) and composting processes were not well understood and the terms themselves were often used interchangeably. Using some of the MDE documents as guidance, the following is an attempt at a simplified definition of the terms, processes and uses of the end product.

Composting

The Task Force spent about 80% of its time discussing composting as this area was of particular concern to the farming community. Composting is a process that takes materials relatively high in carbon called "browns" (wood chips or leaves for example) and mixes them with materials relatively high in nitrogen called "greens" (grass clippings or manure and food waste). The end product acts as a natural fertilizer for farming needs and is often used by residents and nurseries for plantings or vegetable gardens. The MDE defines composting in three broad categories:

Type 1 – uses materials such as grass clippings and leaves
Type 2 – uses materials such as manure, animal mortality, and food waste
Type 3 – uses sewage sludge (not addressed by the Task Force or this report)

The MDE further defines composting facilities by size and material (feedstock) used:

Tier 1 – uses only type 1 materials
Tier 2 small – uses type 1 and 2 materials - produces less than 10,000 cubic yards per year
Tier 2 large – uses type 1 and 2 materials - produces over 10,000 cubic yards per year
Tier 3 – uses type 3 materials

Compost is produced by the aerobic (oxygen-requiring) decomposition of these products *and when done properly*, results in a safe mixture that can be used for soil conditioning. Normal decomposition usually requires a 30 to 1 carbon to nitrogen (C: N) ratio – this can be produced for example by mixing a small amount of wood chips (400:1 ratio) with a large amount of grass clippings (20:1 ratio). Decomposition slows when C: N is too high and the mixture may smell when C: N is too low. The overall process consists of mixing the products above, placing the mixed product in windrows (long rows of material 3-9 feet high), and periodically turning the resulting product to promote aeration and decomposition.

The MDE requires permits for certain size operations and specifies practices to reduce run-off of both storm water and "contact water" for all operations through the use of pads. In some cases, for example the county landfill, the piles are covered and aerated through a closed system that controls emissions.

Given that a relatively small amount of wood chips are required, there are limited "grinding operations" in the production of compost. Since the mulch is moist, the turning operations produce little if any dust.

While great care must be taken to ensure that decomposition does take place – in particular when animal mortality, manure or food waste is used for the high nitrogen source, the MDE has done a good job in defining proper procedures and controls and this group supports and sees the value in the end result – in particular for the farming community.

However, in the case of facilities requiring no permit (MDE or County) and which area placed near homes, wells, and streams, there can be negative impacts to the environment and health of residents if run-off and contact water is not controlled thus resulting in high microbial activity downstream of these operations, and pathogens that are carried through the air during the turning operations (or are not fully decomposed in the end product). Proposals on "home and community" composting at sizes up to 5000 square feet will be an area of concern for many residents and care should be taken by the Council and DPZ in adopting these regulations while promoting County sustainability initiatives.

Natural Wood Waste Recycling (NWWR) or "Mulching"

The Task Force spent less time on discussion of this topic as it results in an end product that can be used by farmers, but often to a much lesser degree than compost. The process involves the transport of trees, limbs, stumps and bark – sometimes as cut (when from the farm) or often in the form of large wood chips (4-6 inches) that are pre-ground at the site of demolition/land clearing - to a facility for further processing.

To create an end product (mulch, wood chips, etc.) the raw materials are ground once or twice more by large grinding apparatus usually in the open (versus a covered facility). In some cases, water mist can be sprayed during the grinding operation to control dust. The resulting piles are then placed in windrows and periodically turned to control temperature during decomposition – which requires less time for the desired end product than composting. Unlike composting, high nitrogen based materials such as grass clipping or manure are not added to the mix. Given the material is relatively dry (as compared to compost); spontaneous combustion can result if temperatures are not well controlled.

The source of the wood waste can be from a farm (usually for periodic clearing of fields or to create new fields) but is more often from commercial land clearing operations for new development. BGE tree trimming or County clean up after storms can be another periodic source of materials. The

end product can be used for farming operations (creation of compost which requires a relatively small amount of wood chips, tree farming, and as a stable bed in horse farms), however, in larger facilities, the majority of the end product is shipped for commercial use and sold by garden centers as "mulch" for use around homes, or as mulch for office centers and industrial complexes. In some cases, the mulch is dyed during the process using safe sources for the dye. In addition, pressure treated wood must be removed from any mix before grinding for health reasons.

The MDE requires all NWWR operations to have a State permit and specifies the conditions which required to receive a permit. These include control of run-off, fire safety, pile heights, noise, etc. It should be noted that the regulations are not as comprehensive as the proposed regulations on composting and the NWWR permit process and operating conditions will be further revised and defined by the MDE in the future.

The citizen groups view NWWR facilities quite differently than composting given the differences in process, end product, needs of farmers and risks to nearby communities when large operations are being considered.

Health, Safety and Environmental Concerns

As the citizen groups informed the County Council in the legislative sessions leading up to the Task Force creation, the primary concerns of citizen groups stem from proposals to place large NWWR operations in rural residential areas where serious health, safety and environmental risks are created by these facilities. In some cases, risks involving composting are also outlined but as stated previously, the group supports this activity for farming and sustainability purposes when conducted properly with proper set-backs and scaled to the needs of the community. *In addition, it should be noted that the MDE guidelines on composting have been recently updated (now in final draft form) and are much more extensive than those for NWWR facilities which MDE plans to update in the future.*

Reports prepared by experts in these fields (some of which live near proposed NWWR facilities) are included as an Appendix to this report. These experts include:

- a Geologist with experience in ground water contamination - who relies primarily on an independent State of New York study of NWWR health risks;
- a Licensed Professional Fire Protection Engineer;
- an independent Civil Engineer from the University of Maryland Center for Advanced Transportation Technology; and
- a cancer research Director (MD/PhD) from Johns Hopkins University who conducted a literature review of pier reviewed publications studying the health effects of NWWR and composting facilities.

It should also be noted that while much of the perspective here is from those concerned about large facilities operating on farms near homes, certain safety concerns (in particular, health due to air quality) equally apply to those facilities operating on M1/M2 zoned properties.

Ground Water Contamination (Appendix A)

While the MDE regulations on composting have been recently updated and require the use of impermeable pads under piles, regulations on NWWR are much less restrictive and only note that runoff should be controlled. NWWR Facilities accept wood waste material that includes trees, stumps, branches and leaves. This material is shredded and placed in windrows to naturally degrade through a composting process over a 6-8 month time period. The size of these windrows is typically 12 feet high by 25 feet wide by 100 feet long. These operations do not require placement of impermeable pads to collect runoff or groundwater monitoring to determine any potential issues. There have been cases both locally (near Dayton, MD) and in other parts of the country (New York, Connecticut) where NWWR operations have resulted in the severe and irreversible contamination of ground water through the process outlined below.

The discharge water or runoff from the windrows is high in organic content (carbohydrates, organic acids, lignin, humic material, carboxylic, hydroxides and amino acids). This material is high in chemical and biological oxygen demand. When the discharge water infiltrates the ground it has the potential to create a low Eh or negative Oxidation Reduction Potential (ORP) or reducing environment. This reaction allows mobilization of existing metals from the soil (i.e. metal oxides such as iron and manganese oxides (Fe_2O_3 and MnO_2), allowing the cations to become mobile in a low valence soluble ionic form). Therefore, changes in the redox potential from the introduction of organic material dictate the leachability of these metals.

MnO_2 can be reduced easier under aerobic conditions in the presence of organic acids (e.g., phenolic compounds) in wood or soil organic matter.

$$MnO_2 + \tfrac{1}{2}\ CH_2O + 2\ H^+ = Mn^{2+} + \tfrac{1}{2}\ CO_2 + 3/2\ H_2O$$

Manganese (Mn) concentrations have been observed at a concentration of 43,000 ppb from wood compost facilities in New York and 13,000 ppb from one wood compost facility in Howard County, MD. Furthermore, background levels of Mn in groundwater from the same area of Howard County only average 20 ppb. Observed Mn contamination associated with wood waste composting facilities is two orders of magnitude greater than the allowable risk levels identified.

If these facilities can be located in agricultural preservation lands they will abut private domestic groundwater wells. In areas such as in Dayton, MD there exists a shallow water table perched above fractured rock aquifers. Metals such as Mn are released from the soil and they need only travel a short distance vertically to enter the water table before they are migrating in unimpeded fractures. These fracture conduits will feed adjacent drinking water wells.

Health risk due to Mn ingestion from drinking water has recently received a lot of research attention due to the identification of being a neurotoxicant. Mn exposure is associated with neurological disorders such as dyslexia, autism and has been linked to low birth weight. Long-

term exposure of elevated Mn causes symptoms similar to Parkinson's disease. A list of published medical studies can be provided.

The FDA allows 50 ppb Mn in bottled water. The EPA has a regional screening level for Mn of 430 ppb. This means that drinking water with elevated levels of manganese above 430 ppb is a health risk. State of Connecticut has an action level for Mn at 500 ppb. The US Agency for Toxic Substances and Disease Registry has a health advisory for Mn that states children should not drink water with Mn concentrations exceeding 1,000 ppb **for even one single day**.

In summary, while all compost and wood waste appears to be a "natural substance" that should decay without concern (such as a tree falling in a forest), the repeated transport of large amounts of feedstock onto small areas over many years can cause uncontrolled leachate to seep into underlying soils and rock and free-up chemicals that can pollute our wells and streams. Therefore, for the reasons stated above, the citizens groups recommended much larger set-backs to wells and streams for both composting and NWWR operations and the location of industrial sized operations only in areas where wells where not in use (those areas receiving water from County sources).

<u>Health Risks and Air Quality (Appendix B)</u>

There is ample evidence that industrial sized NWWR and composting facilities can result in increased health risks due to a variety of factors. These include i) infectious agents such as fungi and bacteria, ii) wood dust which has allergic, mucosal, and cancer promoting effects and iii) volatile organic compounds and endotoxins that have toxic and carcinogenic effects. A review of the medical literature indicates dozens of examples of scientific articles throughout the world related to infectious agents in mulch, primarily leading to acute fungal pneumonia. Fungal spores can travel large distances - on the order of miles - and are of particular risk to immune comprised individuals, including children and the elderly. Many such infections can be lethal: one recent study found that of patients with fulminant mulch pneumonitis, half died due to infection and underlying kidney disease.

The second clear health risk is from exposure to wood dust. The Centers for Disease Control (CDC) and many studies have documented that wood dust particles are associated with a variety of health effects including allergic respiratory diseases, such as asthma, mucosal and nonallergic respiratory effects, including bronchitis, irritation, bleeding, obstruction, coughing, wheezing, sinusitis, and prolonged colds, as well as dermatologic effects such as dermatitis.

Composting sites generate endotoxins from fungi and bacteria and volatile organic compounds (hundreds of chemicals) in addition to other infectious, allergenic, toxic and carcinogenic agents. All of these are a result of the inherent aerobic, biological process of degradation of organic matter. These processes can lead to increases of hazardous substances in the air and in contaminated groundwater containing elevated levels of bacteria, potential pathogens and

excessive organic pollutants downstream of the facility, as well as increasing soil and sediment pollution.

Composting that includes animal mortality and/or food waste can greatly increase the health risks (risk of disease) to the surrounding communities/residents due to significant contamination of soil and groundwater – due to leachate - with higher pathogen content and microbial activity than seen with normal composting (i.e., yard waste composting) in the absence of these components.

Perhaps of greatest concern is that wood dust, a variety of volatile organic compounds, and endotoxins from NWWR sites have been categorized as carcinogens. The CDC states: "The association between exposure to wood dust and various forms of cancer has been explored in many studies and in many countries." The World Health Organization (WHO) indicates "Wood dust causes cancer of the nasal cavity and paranasal sinuses, and of the nasopharynx. It is carcinogenic to humans." There are hundreds of papers in the medical literature that document the increased risk from wood dust for nasal cancers, lung cancers, Hodgkin's lymphoma, and potentially other kinds of cancers. Similarly, organic compounds are risk factors for leukemias and nasal carcinoma, and endotoxins, produced by bacteria and fungi, are known to be associated with liver cancer.

A variety of studies have documented the association of the above health risks to individuals living near waste facilities. These have shown that emissions of dust, bacteria, fungi and other microorganisms as well as organic compounds can be measured at significant distances from waste processing areas and have significant long-term effects on nearby residents (see specific details in expert testimony). These analyses have important implications for residents of Howard County, especially given the large number of children and many residents that spend a significant amount of time outdoors and that would be directly exposed to the health risks described above. Overall, these studies suggest that large, industrial mulching and composting facilities pose clear hazards to human health and suggest that such facilities be restricted to industrial areas and be prevented from occurring in farming, agricultural, conservation, and residential areas.

Given composting sites are better controlled by the MDE and are less prone to dust generation during the turning process (some are covered), the citizens group feels that with proper controls, set-backs and feedstock choices, the risks can be controlled as the end result can be of great benefit to the community. However, the same cannot be said for NWWR facilities – in particular those that are larger than a few acres. In this case, even though this group feels these facilities should be located in M1/M2 areas for fire safety (hydrants available), water quality (no wells), traffic/roads (larger roads) considerations, the fact that these facilities can emit harmful dust as described above should mandate that they be covered when located near residential homes or the general public regardless of the zoning district. In addition to health concerns, dust from operations adjacent to high density commercial-residential areas such as TOD and M1/M2 zones can have a negative economic impact on redevelopment initiatives.

Location of large facilities on rural lands results in the extensive trucking in of material to be processed and then trucked out for commercial sale and will result in significant health, safety and environmental risks to the surrounding communities. Use of the final product for commercial sale rather than use to support farming operations creates a process of limitless size and scope that will place significant health and safety risks on rural and residential communities in proximity to proposed industrial operations of this nature.

Fire Safety (Appendix C)

An inherent fire safety risk presented by NWWR operations is the potential for mulch fires caused by spontaneous combustion of piles of mulch. These fires can require extremely large amounts of water to contain, and therefore, present a particularly serious risk if the NWWR facility is placed in a rural residential neighborhood in Howard County's western areas which are not supported by municipal fire hydrant systems. Composting, on the other hand, if properly maintained, has relatively high moisture content with controlled temperatures of 140-160 degrees F. This combination makes composting windrows less susceptible to spontaneous combustion when compared with an NWWR - mulch manufacturing facility.

The location and size of NWWR manufacturing facilities have a direct impact on community fire safety. Seventy-five (75%) of mulch fires are due to spontaneous combustion[2], as a byproduct of naturally occurring biological processes that occur within mulch storage and curing piles. Probability of fire occurrences can be minimized by proper best practices. However regardless of the level of care exercised by a typical mulch manufacturing facility, fires can and do occur naturally. The distinguishing characteristics that determines whether such a fire becomes a significant threat to public safety is whether it is in an easily accessible location for prompt emergency fire response, has close proximity to a reliable and continuous water supply (municipal fire hydrants), and is remote from homes, woodlands, and grassland exposures. Hence, the typical municipal zoning classification of mulch manufacturing as an Industrial use, and its placement in suitable industrial areas that provide all of the above safeguards.

In consideration of proper community fire safety planning, zoning ordinances overwhelmingly place such hazards in a localized setting (Industrial Parks) so that they might be best served by emergency response resources and be separated from the general public. Attempting to locate hazardous large industrial NWWR processes in more remote rural areas increases emergency response times on narrow rural roads, limits emergency firefighting access, limits water supplies for firefighting and provides exposure threats to other combustible vegetation and neighboring residents. Such poor planning presents a greater opportunity for an otherwise incipient fire to grow into a massive firefighting challenge that robs the community and surrounding jurisdictions of emergency response staffing and apparatus that would otherwise

[2] Source: ''Fires in Mulch Piles – Advice and Experience from the Industry – Findings of a Preliminary Survey'' - July 7, 2009, Robert Rynk, Agricultural Engineering, State University of New York (SUNY) Cobleskill and Richard Buggeln, Center for Industrial Services, University of Tennessee

be available to serve other community needs (house fires, auto accidents, medical responses, fire and police staffing, etc.) for extended periods (sometimes days). In order to minimize unnecessary endangerment to the community at large, known fire hazards such as mulch manufacturing should be properly located in industrial park settings which are designed to best accommodate the hazards they present.

While the majority report does include recommendations by the Fire Marshal regarding NWWR operations, given the size and water requirements of recent mulch fires the citizens group does not feel these recommendations go far enough. For example, in rural areas, the Fire Marshal seems to suggest that the 30,000 gallon cisterns being place in rural Howard County residential areas are adequate to fight small incipient mulch fires if they are within 5 miles of the operation. In contrast, given the amount of water needed to fight recent large mulch fires (3 of which have occurred locally in the past 2 years), a municipal fire hydrant or a 400,000 gallon minimum static water supply, located much closer to the facility, were recommended by a Licensed Professional Fire Protection Engineer in a presentation provided to the Task Force.

In summary, the citizens groups have recommended that adequate water supplies be near any NWWR operation and that industrial sized operations only be located in areas with nearby municipal fire hydrants, adequate access from major highways for quick emergency fire response, and adequate separation from homes and woods to limit fire exposures.

Traffic, Traffic Related Safety Risks, Transportation and Road Infrastructure Concerns (App. D)

Industrial, large scale NWWR and composting facilities can involve massive importing of bulk feedstock and exporting of finished product, thereby causing very heavy transportation impacts. One privately owned NWWR facility in Howard County has processed 43,000 tons of materials annually for example. Vehicles accessing these facilities range from landscaper nursery pickup trucks with landscaping trailers to triple-axle dump trucks and large tractor trailers. Proper transportation planning locates such facilities in close proximity to major highways and away from smaller rural roads. Locating these facilities on rural roads would increase traffic congestion and result in roadway deterioration due to large, heavy triple axle trucks and tractor-trailers using the roads, and would also result in significant concerns regarding safety hazards associated with narrow and winding roads with limited sight distances.

A primary concern with the placement of large scale NWWR facilities is potential road deterioration, otherwise known as pavement distress. The access roads leading to the facility need to be of suitable construction for the axle weights and traffic counts involved in these high traffic facilities. Research conducted by the American Association of State Highway Officials and the Oregon Department of transportation indicates that one fully loaded tractor trailer, such as those used to haul NWWR feed and end-product, causes the same amount of road damage as, at a minimum, 750 automobiles (in some studies the damage was estimated to be as high as equivalent to 9,000 automobiles). Thus, a road that is constructed without

anticipating heavy truck traffic would deteriorate quickly and pose significant hazards to rural residential users of the roads.

To add perspective and seriousness to both safety and roadway deterioration concerns, per the community pre-filing meeting held by the operator, the 16 acre industrial mulch operation proposed in Dayton is projected to result in 25-50 dump trucks and tractor trailers bringing material in and trucking out end product daily (Appendix M). This translates into a minimum of 50 round trips daily, and an astounding 15,000 industrial scale trucks on these small rural roads each year from this one proposed facility alone.

From a road deterioration perspective, the base minimum figure of 50 trucks is equivalent to an additional 37,500 cars on rural roads every day – a figure that will cost the County in significant road maintenance funds and significantly congest local rural roads and intersections. From the perspective of safety risks associated with this volume and scale of commercial truck traffic, major concerns exist primarily given that children each school day throughout the year wait at the edge of these small rural roads to get on school buses all morning and are let off again all afternoon. Significant similar concerns also exist for cyclists, joggers and all pedestrians who utilize these same rural roads for recreational related activities. The associated risks are unacceptable to the groups on the Task Force that represent the interests of the residents and rural communities.

Large arterial roads and highways are designed for such loads and frequency of use, whereas rural and secondary roads are typically not designed to withstand the heavy loaded vehicles on a continual basis. Road deterioration creates safety hazards for smaller vehicles, bicyclists, and other non-industrial vehicles using damaged roadways. Furthermore, maintenance costs by improperly located industrial NWWR facilities can result in an unnecessary increase in taxpayer funded maintenance. Rural intersections are not designed typically to support long wheelbase vehicles (tractor trailers and pulled trailers), resulting in traffic congestion and reduced safety to other users. In summary, there are very good reasons that industrial processing facilities having significant truck traffic are typically located in industrial zones that are designed to safely accommodate their facilities.

In the case of mulch manufacturing and composting, this group found that CB-20-2014 (Appendix O) eliminated the requirement of a traffic study. It is inconceivable why the most traffic burdensome use (of all conditional uses permitted on Agricultural Preserve properties) would not be subjected to a traffic study, but instead only requires that the roads and bridges be structurally adequate[3]. This limited requirement completely ignores the significant risks to residents in rural residential communities presented by road deterioration, limited traffic capacities of roads and intersections, narrow turning radii and road widths, shoulders, line of sight, bridge and culvert capacities, road speeds, road slopes, stopping distances, school bus

[3] CB-20-2014, Para. k, "The structural elements of the roads serving the site shall be adequate for the truck traffic to be generated by the composting facility. The petition shall include a road condition study to allow the Hearing Authority to make this determination."

stop location safety, and many other factors that comprise an engineered traffic study. The incredible result of CB-20-2014 is that a hair salon on Agricultural Preserve property would require a traffic study, while an industrial facility importing 43, 000 tons of material in large heavy vehicles would not.

Clearly, a full engineered traffic study, that includes a study of roadway capacity and potential increased deterioration, is needed for such a facility to ensure that safety and quality of life are not compromised by placing inappropriate uses in areas that are not of similar character and suitable infrastructure. Because of the potential increase in the type, as opposed to just the volume, of traffic, the independent University of Maryland transportation engineer recommended that a traffic study for such a facility include, in addition to standard traffic analysis:

- Roadway core samples for impacted roads;
- Asphalt profiles for impacted roads;
- Water collection and drainage system analysis;
- Sight distance analysis;
- Soil sampling of base pavement and age of the road; and
- Shoulder and turning radius analysis.

Finally, Howard County initiatives on improved pedestrian access and increased biking routes are in conflict with tractor trailer sized trucks on our local, rural roads. Opposing arguments that state that farming also requires trucks are over-stated and are making an "apples and oranges" comparison given the typical size and quantity of vehicles entering and leaving farms. In addition, the County should consider the liability issues related to accidents caused by these proposed industrial facilities.

It should also be noted, that the noise produced by trucks loading and unloading material and the grinding machines used in NWWR operations can be significant. Complaints have been noted by residents near these facilities concerning the above with "beeping trucks" (in reverse) heard very far away (Appendix K).

In summary, the citizens groups have recommended that industrial sized NWWR and composting facilities be located in areas with roads that are adequate for handling the increased truck traffic (up to 25 trucks per day for larger facilities) generated by such operations.

The net result of these health and safety concerns is two-fold. First, permitting virtually unfettered industrial NWWR development near rural residential land, as some in the Task Force propose, would ignore the health and safety of a large segment of Howard County's citizens and voters to enrich a very small segment of the residents. Second, creation of industrial NWWR facilities in Howard County's rural West, the most likely and currently proposed location for these facilities, would severely depress property values in these areas. Thus, in the long run, these facilities could hurt not only County

residents' health (a concern that alone should call into question the wisdom of allowing virtually unchecked industrial NWWR operations), but the value of land that farmers exiting the farming business could receive for their land, the recovery in property values experienced since the recession of 2008, and, thereby, significantly lower County property tax revenues from both farms and homes alike in the rural West.

Concerns Over Large Industrial Facilities on Parcels in Agricultural Preserve

As noted in the introduction, this group is strongly opposed to the placement of large, industrial NWWR or composting operations on farms that have been made part of either the State of Maryland or the Howard County agricultural preserve program. Along these lines, we believe that CB-20-2014, which passed unanimously by the County Council on June 2, 2014 to reverse the unintended consequences of Comprehensive Rezoning, namely to prohibit industrial NWWR or industrial composting facilities to operate on Howard County and State of MD Ag Preserve farmland for all the right reasons given inherent health, safety and environmental risks for the surrounding rural communities. We observed on Nov 25, 2014 that CB-20-2014 was upheld in the case of Howard County/DPZ vs. Oak Ridge Farms given the Consent Order entered that resulted in the immediate shutdown of the industrial mulch facility operating in violation. This property, on MD Ag Preserve farmland in Woodbine within Howard County, also had previous citations (Appendix K).

Industrial operations are defined as those that sell the vast majority of the resulting product for commercial sale versus for use on the farm or other farms farmed by the land owner. In addition, in the case of NWWR operations, these industrial facilities bring in the vast majority of their material from outside of the farm. This group supports composting and NWWR for the farming needs of the farmer owning the land – regardless of whether it is part of an agricultural preserve program. However, there is a clear distinction between the two types of operations, how the end product is used (farming or commercial sale), and therefore whether certain industrial operations should be allowed on farms in agricultural preserve.

The rationale for this opposition is outlined below and stems from the expectations of rural residents and communities surrounding these properties that they would remain going agricultural concerns and not be converted to "industrial" or "commercial" uses that are prohibited by the deeds entering these properties into the various Ag preserve programs (see appendix for added documents):

- The easements signed by the farm owners and the County or State prohibit the farm from being use for developmental, commercial or industrial uses (Appendix F and G). Residents near these farms were made aware of this program by signs sold by the County stating "Farmland Forever – thanks to this landowner and Howard County Government this farmland is permanently preserved". The County is a party to these easements and must enforce them to the greatest extent possible with only sensible exceptions being made.

- The intent of the agricultural preserve program as administered by the State or the County Agricultural Preserve Board is as stated above. However, exceptions have been made to the Ag

Preserve zoning restrictions in order to help farmers economically for operations related to farming or that use facilities on the farm for limited commercial purposes. See appendix H and L. In the past, these exceptions have resulted in commercial uses that are limited in size – for example, one acre or 2% of the farm. This limit was increased to 10% of the farm in the 2013 rezoning for wineries – which this group views as a farming activity - and for composting which was ill defined at the time and driven both by valid farming needs and by purely commercial and industrial interests. DPZ was well aware of proposed NWWR facilities that would benefit from this change.

- The majority report's characterization of farming as industrial ignores the plain meaning of the words. Industrial is defined as "of or relating to factories, the people who work in factories, or the things made in factories." Agriculture is defined as "the science, art, or practice of cultivating the soil, producing crops, and raising livestock and in varying degrees the preparation and marketing of the resulting products." Agriculture is not industrial. An NWWR facility that produces mulch for commercial sale is a factory and is industrial. There should be no question after seeing a large scale composting or NWWR facility that it is industrial and is not farming, regardless of how some choose to classify true farming operations.

- Other states have ruled that NWWR does not fall under "right to farm" laws as it is not farming[4] (Appendix E). The State Agricultural Preserve program stipulates that for NWWR operations, more than 50% of the material used to produce mulch must come from the farm to be considered a farming operation – in a recent case (Oak Ridge Farm), we feel this requirement was mis-interpreted by County Agricultural Preservation Board members thus allowing a facility owner on State Agricultural lands to proceed with operations even though very little of the material came from the farm. See Appendix I and J.

- The County had previously included in the definition of farming a restriction on bringing in wood waste from land clearing operations. For some reason, this was removed from the definition during the comprehensive rezoning process in 2013; a process which we know was influenced by supporters of the NWWR industry in Howard County. The County had also treated farms in the State Agricultural Preserve program the same as those in the County Program, this was also changed in the rezoning process. Clearly, there are interested parties that are attempting to water down the true goals of the County and State's agricultural preserve programs.

- Given the restricted uses of farms in agricultural preserve programs, the resulting sale of those farms is often at a lower price than it would be for farms not in the program that are sold to

[4] Appendix E - Pennsylvania Commonwealth Court's determination in Tinicum Township v. Nowicki. Tinicum is a township in Montgomery County, Pa. where industrial mulching was taking place on ag preserve land under the guise of farming: *"The Commonwealth Court further held that the mulching operation was not protected as a "normal agricultural operation" under the Right to Farm Act.* ***The Court reasoned that mulching operations do not constitute "agricultural operations," especially where none of the raw materials for the operation are produced on the property and none of the resulting mulch is used for agricultural commodities on the property.*** *The Court clarified that the Right to Farm Act requires some connection between the use and employment of the land itself."*

developers. To compensate for this, the County pays the farm owner to keep the farm for farming purposes in perpetuity and give up all development rights along with any commercial and industrial uses. In 2010, the county paid over $2 million to a farm owner to place his farm in the program. Proposals that allow large industrial operations on farms in agricultural preserve will only entice industry to purchase these farms as the price will be much lower than farms not part of the program. This sets-up a situation that obviates the primary goals of the program – to keep farms for farming purposes. In fact, in 2014 an individual representing a commercial land clearing company attempted to purchase the farm that the County had paid $2 million to keep in agricultural preserve just four years earlier, and did purchase a farm in agricultural preserve with the intent of setting up a 16 acre industrial NWWR operation. To be clear, these are business owners, and not farmers, who are exploiting the Ag Preserve program for commercial gain and not in support of true farming operations that are the heart and soul of the intent of the Ag Preserve program.

- Given the above, any new owner operating what is now an industrial operation pays much less tax than would have been the case if the commercial industry was placed on M1/M2 lands or other parcels not in agricultural preserve (example: ~$8,000/year on a 160 acres ag preserve parcel vs. ~$45,000/year for ~8 acres in industrially zoned areas). Given the sale of our farms the County has paid to put in preserve, along with the lower resulting tax revenues, the County and its taxpayers are, in effect, subsidizing industries that will buy these farms should the conditions laid out in the easements and agricultural preserve program become further diluted. The end result is not "Farmland Forever" but commercial industry on our farms.

- The potential siting of known industrially hazardous processes onto Ag Preserve farmland is egregiously incompatible with the land use planning intent and mandated goals of the Howard County Zoning Ordinance in that it is an unsuitable use of agriculturally preserved farmland, is not in keeping with the surrounding rural character of the neighborhoods and infrastructure, it introduces well documented increased hazards to residents and roadway users, it lowers homeowner property values and decreases the resident's overall quality of life.

In summary, while many in the farming community want to see no restrictions on farms placed in agricultural preserve, there have been restrictions since the start of the program and the signing of the easements. These restrictions are well known to the farming community. Changes have been made to these restrictions to promote added economic benefit or new farming activities such as wineries; however, the changes made in 2013 that would have allowed large scale, industrial NWWR and composting operations on farms in the program have gone too far in diluting the intent of the program for the benefit of a very few.

The citizen groups that have signed on in support of this concerned citizens report have worked hard to find a solution that prevented uses of the farms in the program for industrial operations but allowed the farmer to meet farming needs. It should be noted that a proposal to not allow NWWR operations on farms in agricultural preserve that shipped a vast majority of their end product for commercial sales versus for use on the farm did pass by a majority vote.

Recommendations:

The task force and this group spent considerable time developing a matrix that followed the MDE categories with regard to type of materials used, setbacks, health and safety and size of facility. In cases where there was disagreement, the matrix included comments by various members of this group (Appendix N). The following gives broad recommendations concerning common areas of concern by this group. Detailed recommendations by group members can be found in the matrix attached to this report.

- Throughout the course of the task force, there has been a consistent dialogue about reducing safety regulations to incentivize, preserve the right to farm, and prevent a precedent of increased regulations. The concerned citizens group recommends that air, water, fire, personal safety, and health risks to the community should not be compromised regardless of location, and appropriately scaled controls need to be implemented for any operations for the benefit of all citizens.

- Farm-based Composting Facilities (operated in support of on-site farming operations) – this group fully supports composting for farming operations but felt that the farming requirements for maximum facility size were often overstated and suggested lower limits. Task Force restrictions on percentage of the farm to be used for these operations (usually 5-10%) were sometimes understated (in particular for smaller farms) and special exceptions for small, fertilizer free farms should be considered. There was also much debate over setbacks, with this group recommending higher limits for facilities near homes and wells. Finally, there was concern over animal mortality and food waste used in composting with regard to amount and setbacks.

- Farm-based NWWR Facilities (operated in support of on-site farming operations)for the benefit and use on the farm) – given that the uses of wood chips are generally limited to tree farms, horse farms and a small amount needed to generate a compost mix, this group suggested lower limits with regard to facility size and also recommended increased setbacks. Given MDE has not yet updated its regulations concerning NWWR and that there are increased health and safety concerns with these facilities as compared to composting facilities, this group recommends that all leachate be controlled through the use of pads and that misting operations are used when grinding occurs. Adequate water supplies as recommended by a Licensed Professional Fire Protection Engineer should also be in place.

- The group has significant concerns over composting and NWWR operations that are used for industrial/commercial versus farming reasons. In the recommendations section of the matrix, various member of this group suggested that in cases where more than 25% of the end product was being shipped for commercial sale versus for use on the farm, that the facility be considered an industrial operation that should be located on M1/M2 properties only (and not

appropriate to RC and RR zones)[5]. These facilities would be covered, require nearby fire hydrants, and would be only located in areas that do not use wells *as proximity to local residents concerns when on M1/M2 lands must also be considered.* In the spirit of cooperation with existing NWWR facilities, the concerned citizens group would suggest grandfathering of existing NWWR facilities (at current sizes up to 5 acres), operating on non-Ag Preserve farmland parcels in Howard County. This recommendation should only be considered provided such facilities were operating in accordance with all State and County permits, and without existing citations, violations and/or complaints, at the time of passage of CB-20-2014 (App O).

- Regardless of the outcome on specifics for NWWR and composting within the County, this group feels strongly that in no case should a facility producing mulch (NWWR) or compost as an industrial operation (selling the end product for use off the farm) be allowed on Howard County Agricultural or State of Maryland Agricultural Preserve Lands. It should be noted that the majority of the Task Force did vote in favor of a similar recommendation concerning industrial NWWR facilities on Ag Preserve lands. In addition, this group recommends that the change in zoning laws made during comprehensive rezoning in late 2013 which removed restrictions on State of Maryland Ag lands be reversed (i.e. Howard County and State of Maryland Ag lands should be treated under the same set of zoning rules as was the case pre-2013).

- While there was unanimous support for "home and community" composting within the County, given the breadth of this initiative (impacts almost all residences in the County) and health concerns that arose during discussions (such as limiting any type of meat in food waste used), the group recommends that the County Council carefully review this area with regard to maximum sizes, types of feedstock, and set back from homes. Given the risks involved, the County may want to consider training courses for the community to insure that proper and safe practices are being followed. While promoting sustainability within the County, new zoning regulations in this area allowing such composting very close to almost all homes will likely result in significant community push-back if the program is not rolled out properly.

- The concerned citizens wholeheartedly endorse the unanimous position taken by the Full Task Force to recommend that the County play a proactive role in creating viable solutions on tracts of land in M1/M2 industrial zoned areas appropriate for industrial NWWR and industrial composting facilities that are located far from residential communities to ensure health and safety risks are avoided. Additionally, the County should consider creating incentives for these types of go green sustainability initiatives in order to entice industrial NWWR operators to locate their facilities in these areas. The Task Force also recommends that the County provide greater resources for enforcement of its regulations, primarily to the Department of Planning and Zoning but also to the Department of Health and to the Department of Fire and Rescue Services.

- [5] Use on the farm is defined as the farm or other farms that the operator is farming and includes mulch and compost shipped as part of a normal farming crop such as trees.

In summary, the concerned citizen groups do support composting for farming and County sustainability reasons with sensible guidelines, but cannot endorse the Task Force report that allows virtually unfettered growth of industrial mulch (NWWR) operations in rural residential areas. The loss of farmland to these industrial operations would be a tragedy that would threaten the health and safety of County residents, drive down property values in Howard County's rural West (the most likely location of these facilities), and do serious damage to the Ag preserve programs in Howard County. In addition, location of these industrial NWWR facilities in M1/M2 areas should take into account the health and safety recommendations made in this report to fully protect those residents living near such operations.

The concerned citizens group trusts that the County Council will consider all of the issues identified in this report, especially the hard evidence of the myriad problems associated with industrial scale NWWR and composting. Upon such review, we believe the Council will conclude that the majority report failed to recognize or adequately address the significant negative impacts that large scale composting and mulching facilities pose to neighboring communities. It is our heartfelt belief that the Council will craft a more comprehensive and robust regime to regulate NWWR and composting in Howard County than has been spelled out in the majority report.

Appendices

Appendix A – Report on Water Contamination from NWWR Facilities
http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=DPWqCxTWD48%3d&portalid=0

Appendix B – Report on Health Issues connected with NWWR Facilities
http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=H7OSwuomuyY%3d&portalid=0

Appendix C – Report on Fire Safety Issues with NWWR Facilities
http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=9N64WpWNTq8%3d&portalid=0

Appendix D – Report on Traffic Safety and Road Deterioration Issues with NWWR Facilities
http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=HE3Uho5xPxw%3d&portalid=0

Appendix E – Pennsylvania Ruling on NWWR within Right to Farm Act
http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=_alTwraNsEQ%3d&portalid=0

Appendix F – Sample Howard County Ag Preserve Easement
http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=EQH4YVtHeq0%3d&portalid=0

Appendix G – Sample State of Maryland Ag Preserve Easement
http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=jTsvRBFHUE8%3d&portalid=0

Appendix H – Explanation of Howard County Ag Preserve Restrictions by Ms. Levy
http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=P5k9haLmqBo%3d&portalid=0

Appendix I – State Ag Preserve Regulations Regarding NWWR/Mulch on Ag Lands
http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=PubR3uxOLlE%3d&portalid=0

Appendix J – Comments by Ms. Levy on NWWR Operations on State Ag Lands
http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=ued6f054MEI%3d&portalid=0

Appendix K – Bonner/Oak Ridge Farm Violations
http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=T8Tz9yR3qmg%3d&portalid=0

Appendix L – Pre-comprehensive rezoning use table for Ag Preserve Lands
http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=w_Dc4hqLlgo%3d&portalid=0

Appendix M – Pre-submission Meeting Notes on Proposed NWWR Facility in Dayton, MD
http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=EJuo-oS-LFk%3d&portalid=0

Appendix N – Task Force Recommendations Matrix with comments
http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=pVPkyO3h1OE%3d&portalid=0

Appendix O – CB-20-2014 Zoning Amendment

https://apps.howardcountymd.gov/olis/GetFile.aspx?id=3657